

The American Rose Society

ORGANIZED 1899

MEMBERSHIP

(According to Revised Constitution adopted Sept. 29, 1920.)

LIFE MEMBERS pay \$50, and are thereafter exempt from the payment of dues. The fees received from life members are invested as a permanent sustentation fund.

RESEARCH MEMBERS pay \$20 or more annually, all funds so received being devoted to rose research.

SUSTAINING MEMBERS pay \$10 annually.

ANNUAL MEMBERS pay \$3 each year.

AFFILIATED MEMBERS are received at \$3 through the secretary or other official of an organized rose or horticultural society, who will distribute the publications to which such members are entitled. If 10 or more affiliated members are so received, a rebate of 50 cents each is returned; if 50 or more, there is a return of 75 cents, each; if 100 or more, there is a return of \$1 each.

All members vote at all meetings, receive the publications of the Society (affiliated members through their secretaries), and are provided with Membership Cards entitling them to admission to all exhibitions in charge of the Society.

EXHIBITIONS AND ANNUAL MEETING

The American Rose Society holds annually one or more exhibitions. These usually consist of an exhibition held in connection with some large flower show, and of one or more outdoor exhibits held at some one of the Society's Rose-Test Gardens, or at some other large rose-garden. Information will be sent to members concerning any such exhibitions in 1921.

PUBLICATIONS

THE AMERICAN ROSE ANNUAL

is mailed in March to all members, and copies are sent to the secretaries of all affiliated societies for each member thereof for whom proper payment has been made. It cannot be bought in book-stores.

Extra copies may be had, by members only, at \$2, upon application to the Secretary. While available, the Annuals for 1920, 1919, 1918 and 1917 are supplied to members only at \$3 each, and the 1916 Annual at \$5, or complete sets, while available, including 1921 membership and six Annuals, for \$18.

THE MEMBERS' HANDBOOK

is issued in April of each year. It contains proceedings of meetings in brief form, rules of registration, judging, premium lists, etc. It also contains the complete membership list to April 15, both in alphabetical and in geographical forms.

Information for or about the publications should be mailed to J. Horace McFarland, Editor, Harrisburg, Pa. All membership inquiries and payments should be addressed to

JOHN C. WISTER, Secretary,
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THE AMERICAN
ROSE ANNUAL



PLATE I. Roses at the Home of Dr. Hiram De Puy, Tacoma, Washington. (Rose-Test Garden in the Background.)

(Supplied through Courtesy of the Tacoma Rose Society. See page 60.)

THE AMERICAN ROSE ANNUAL

*THE 1921 YEAR-BOOK OF
ROSE PROGRESS*

EDITED FOR THE AMERICAN
ROSE SOCIETY BY

J. HORACE McFARLAND



1921
AMERICAN ROSE SOCIETY
EDITOR'S OFFICE
HARRISBURG, PA.

THE American Rose Annual is supplied to all members of the American Rose Society whose dues are paid for the current year. Additional copies are supplied to members only at \$2 each, postpaid. When sold separately, the price of the Annual is \$3, and includes annual membership. Members may obtain copies of the 1917, 1918, 1919, and 1920 Annuals, so long as in print, at \$3 each, and of the 1916 Annual (the first issue), at \$5; or the six issues will be supplied, while in print, for \$18, including current membership.

Address, **JOHN C. WISTER**, *Secretary*
606 Finance Building, Philadelphia, Pa.

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By **J. HORACE MCFARLAND**, Editor

The 1922 American Rose Annual will be issued in March, 1922

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Mount Pleasant Press

Harrisburg, Pa.



The Rose in America

“We are approaching
the problem from the standpoint of
a rose for every American yard,
a dozen for every garden”

—H. H. HUME, “*Rose Stocks and Root
Systems*,” page 47

THE AMERICAN ROSE SOCIETY

ORGANIZED MARCH 13, 1899

*"To increase the general interest in the cultivation and improve
the standard of excellence of the Rose for all people"*

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MEMBERSHIP

LIFE MEMBERS (\$50), RESEARCH MEMBERS (\$20 or more annually), SUSTAINING MEMBERS (\$10 annually), and ANNUAL MEMBERS (\$3), receive all publications, are entitled to admission upon presentation of membership card to all exhibitions managed by the Society, and can vote at all meetings.

AFFILIATED MEMBERS pay \$3 each, and have all privileges. If 10 or more such memberships are sent in by the secretary of a local society interested in rose culture, 50 cents each is returned for the use of such society; for 50 or more members, 75 cents each is returned; for 100 or more, \$1 each. Publications for affiliated members are distributed by the local secretary.

Remit to order of American Rose Society, and address

JOHN C. WISTER, Secretary, 606 Finance Building, Philadelphia

*Deceased

EDITOR'S PREFACE

IF THE EDITOR were questioned as to his idea of the tendency shown in the contents of this, the sixth American Rose Annual to be issued, he would say that it was toward making the rose really universal in the United States.

Believing as he does that the rose is God's greatest floral gift to man, that its nurture is fraught with benefits to the spirit far in excess of those resulting from the mere sight-enjoyment of the flowers, he hopes to see millions more of American homes know the rose, to their advantage and that of the nation. It is in this hope that he works.

The members of the Society are helping in this direction, as the contents of this Annual bear witness. The suggestions and experiences for protecting and for prospering roses in all parts of the land; the beginning of acute attention to the selection and growth of suitable rose stocks; the further detailed presentations of the best "back-yard" roses; and the showing as to great private rose-gardens, all tend toward the universalizing of the queen of flowers.

Very encouraging is the report of rose-breeding progress, so ably conducted by Dr. Van Fleet, under the wise fostering of the Federal Department of Agriculture. The novel possibility of the early dissemination of some of Dr. Van Fleet's creations, which may well be called national roses, through the controlling agency of the American Rose Society, is also encouraging.

Again much space is given to two unique features of record as well as present value. The rose-makers of the world have for the most part responded gladly to our request for the accurate information which permits us to present a comprehensive list of new roses. The American introductions are now presented as an "Official List of American Roses," believed to be inclusive as well as accurate.

The pleasant fraternal relations existing with the great rose

organizations of England, France, and Australia are in evidence in this Annual. Very grateful is the Editor for the courtesy of the Secretary of the National Rose Society of England, as well as for the help of our French friends, MM. Turbat and Siret.

One regret the Editor expresses: that so small a percentage of the widespread membership of the Society responds with asked-for information and suggestions. Most interesting are the letters that do come, but the Editor feels that it would only be a fair recognition of the time and effort gladly spent on his part if many more rose friends would write in inquiry, in criticism, in suggestion, in helpful attention. Isn't the rose prosperity of America worth a letter and a stamp once a year?

A "rose-note" may help another member past a hard spot. Our friends are especially urged to use promptly the enclosed mailing cards.

The organization of the Society has been notably advanced in the establishment of the Secretary's office in Philadelphia. The "Members' Handbook" which follows the Annual, with various details and the complete membership list in alphabetical and in geographical forms, is an evidence of the increasing strength of the Society. This strength should increase materially in 1921 through the efforts of our members.

The tradesmen whose announcements follow the text are all reliable, and their offerings are commended to our members. It is hoped to present thus each year a practically complete list of the dependable rose merchants of America.

J. HORACE McFARLAND

*Harrisburg, Pa.
March 15, 1921*

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PLATE II. Some Chinese Roses and Their Van Fleet Hybrids as Grown at Bell Experiment Plot. Photographed May 20, 1920

- A. *Rosa Willmottiae* × *R. altaica*.
- B. *R. Willmottiae*; violet-purple.
- C. *R. Hugonis* × *Harison's Yellow*; semi-double, primrose-yellow.
- D. *R. Hugonis* seedling; deep cream.
- E. *R. altaica*; white.
- F. *R. Hugonis*; canary yellow.

(See page 26)

THE AMERICAN ROSE ANNUAL

The American Rose Society in 1921

By ROBERT PYLE, President, West Grove, Pa.

THOSE longest identified with the American Rose Society have most difficulty, perhaps, in realizing its actual growth.

When, in 1907, the Society was received in the East Room of the White House by President Roosevelt—on which pleasant occasion he warmly commended Mr. E. G. Hill for his roses “Made in America”—we numbered, I think, 111 active members. Now the Society includes more than two times 1100.

With this growth, together with our Rose-Test Gardens and Rose Show Gardens and relations with affiliated organizations, with many other varied activities, coöperating in exhibitions and in other meetings, the actual business of our Association has come to require definite headquarters, and the full time of a capable assistant to the Secretary.

It was with sincere regret that we released from his arduous services our indefatigable and kindly Secretary, Prof. E. A. White. It was but reasonable, however, that his college at Cornell should hold first claim. A happy arrangement with the president and directors of the Pennsylvania Horticultural Society, who have invited us to share their spacious office, has enabled us to establish administration headquarters in Philadelphia (at 606 Finance Building) for our new Secretary, Mr. John C. Wister, of Germantown. Mr. Wister is president of the American Iris Society and is otherwise horticulturally well known. His interest in the rose is keen, as evidenced in his delightful article on “The Home of the Gloire de Dijon Rose,” contributed to the 1920 Annual.

Mr. Charles H. Totty, of Madison, N. J., formerly president of the Society of American Florists, and prominent as a rose-grower, accepted the call of the Executive Committee to become treasurer in place of Harry O. May, who felt obliged to resign. Mr. May's father, John N. May, was the first treasurer of the American Rose Society. We owe gratitude both to father and

son, who in turn have faithfully served the Society as treasurer from its earliest beginnings until January 28, 1921.

In the readjustments essential to care for a large and steadily increasing membership, covering the whole rose world, our officers have endeavored to increase the service available to members. The Members' Handbook, first issued in 1920, promptly proved its value in more ways than one. It likewise increased our expenses, which have necessarily followed the upward trend. No one would want the rose-advance of America limited by the decreased purchasing power of annual dues of but \$2, perhaps originally too low for even the mechanical cost of dealing with the correspondence and the desires of several thousand members. Indeed, the admirable American Rose Annual is only made possible by Mr. McFarland's gratuitous work, not only in editing it, but in conducting throughout the year a world-wide rose correspondence on behalf of the Society. Other officers and members of the Executive Committee have also done much important gratuitous work, even contributing their necessary traveling expenses out of a love for the rose. With no expense for rent of either of the two offices maintained, and with only part of the clerical expense covered in the single salary paid by the Society, it was but in line with American procedure for the Society, in its annual meeting, held upon due notice in October, 1920, to vote unanimously for an increase of the annual dues to \$3, and to establish two new classes of membership. Sustaining members pay \$10 annually, and Research members pay \$20 or more annually, the funds derived from the latter being held separate for promoting inquiry into rose-needs.

It is gratifying to note than the members have responded cheerfully to the situation, and our membership is constantly increasing. The officers hope that many rose friends will assume the supporting relation of Sustaining or Research membership for further improving the service of the Society.

In order to secure certain definite advantages for its membership, it has seemed desirable to incorporate the American Rose Society, and action has been undertaken to secure a favorable legal status as "a corporation not for profit," under which gifts and trusts in pursuance of its aims may be accepted and

administered, and which would permit certain favorable arrangements, elsewhere announced for giving the public access to some notable new roses.

Every progressive organization should have a purpose, and a definite plan of endeavor. We have both!

To nationalize the love for roses in America, with a "Rose for every home and a bush for every garden," is our declared purpose.

Our plan of endeavor calls for individual effort that shall largely increase our membership and our resources. We need to increase our power for usefulness.

While we are proud of the successive issues of the American Rose Annual, we should provide a Rose Manual for each member to help in intelligent rose-growing. We need funds for research and investigation; we need to provide more prizes to stimulate hybridizers toward rose-advance. We need more heartily and helpfully to assist and coöperate with our affiliated organizations.

But nothing we can *say* can possibly approach in effectiveness the persuasive power of what people *see*. We need to make an onslaught upon the park superintendents and park commissioners of America, who hold in the hollow of their hands an enviable opportunity. No other feature in a park system can approach in value, compared with cost, the worthwhileness of a *community rose-garden*. It has been proved many times that more people will find more joy to the square yard per dollar of cost in a municipal rose-garden than in "any place else on earth."

Let us reveal to the roseless park people their great opportunity, and thus reach the roseless homes!

THE ROSE TRIP TO THE PACIFIC NORTHWEST, planned to include all members or friends of the Society living at or west of Portland, Maine, who arrange to join in a pilgrimage in June, 1922, to the rose wonderland of the Pacific Coast, and including not only visits to several national parks coming and going, but stops at rose centers enroute, is elsewhere in this Annual announced in detail. Our friends in Portland, Seattle, and Tacoma are looking forward with anticipation to the fraternization with their eastern associates which is so pleasant and so helpful. We can start rose-love into growth all across the continent. Let us go in strength and in hopefulness!

Roses in Antiquity

By JESSE A. CURREY, Seattle, Wash.

EDITOR'S NOTE.—It was hearing Mr. Currey tell of the rose in antiquity that led the Editor to ask him to give the members of the American Rose Society the advantage of his research. We who own the gentle reign of the Queen of Flowers will think no less of the crown because it was bestowed full thirty centuries ago.

THE ROSE is the oldest cultivated flower. While its origin is shrouded in the dim mists of antiquity, we find in the Bible, in Greek mythology, and in the writings of the ancient Roman philosophers and poets, its history, showing that it was cultivated in the earliest times. Nothing else in the garden can compare with the rose for age, as nothing else can compare with it for beauty of form, brilliancy of color or sweetness of perfume. It is one token which has come down to us, without change of character through countless ages.

In its calm reign the rose has beheld emperors as they fell from their thrones. It has been the silent spectator at the destruction of the greatest cities. It became the favorite token of the Christian church and also of the pagan potentate. Poets for centuries have sung its praise, and scientists have worked to improve its color and form. Mighty rulers have used it on their banners. Infidel conquerors of the Holy City used its essence as a cleanser of those places occupied by Christians, and the Christians in turn used it as the highest mark of appreciation for services rendered in driving the infidel hordes from the same Holy City! The rose has played its part in war, in the Reformation, in the ceremonies of the Christian church, and in the worship of pagan gods. It has survived through all the world's history, and more than ever today does it merit the title bestowed on it 2,600 years ago in Athens of "The Queen of Flowers."

Whether the Children of Israel brought the rose with them out of the land of Egypt has not been clearly established, for while the hieroglyphics on the ancient tombs and monuments of Egypt which have been deciphered fail to show that the rose was cultivated in the valley of the Nile during the years the Jews were under Pharaoh's rule, it has been disclosed that the rose

was cultivated in Egypt at a very early period. In their new land the Israelites considered the rose soon after their settlement, as is evident from the fact that we find, about 1000 B. C., in the songs of Solomon "I am the rose of Sharon." In the Apocryphal Wisdom of Solomon it is written "Let us crown ourselves with rose buds before they be withered."

As additional confirmation of the fact that the Jews cultivated the rose soon after they became established in the Holy Land, we find in Isaiah 35 : 1, written about 890 B. C., this passage: "The wilderness and the solitary place shall be glad for them; and the desert shall rejoice, and bloom as the rose."

While the Books of Ecclesiasticus are now omitted from the Bible, we learn in the Apocrypha that the Jews at Jericho had wonderful gardens filled with roses during the eighth century B. C., for this philosopher wrote "I was exalted like a palm tree in Engaddi and as a rose plant in Jericho." Elsewhere he gave expression to "Hearken unto me, ye holy children, and bud forth as a rose growing by the brook of the field."

Thus not only was the rose known among the Jews prior to the reign of Solomon, but the Greeks as early as the tenth century before the Christian era had acquired knowledge of rose culture either from the Jews, the Egyptians, or the early Babylonians.

The explorations of ancient Babylon have so far failed to reveal direct evidence that the rose dominated the famous gardens of that city, but it is generally assumed that if it was not included in the original development, attributed to Setonius, about 1200 B. C., it found place in the gardens when they were developed to their greatest extent under the reign of Nebuchadnezzar, 605 B. C.

Upon reading the ancient Greek poets it will be discovered that the rose was used more frequently in painting word pictures than any other natural object. The freedom of its use suggests that it must have been an every-day as well as a much admired flower of the Greek, Homer, who, writing about 950 B. C., calls upon the brilliant colors of the rose to help him paint a picture of the rising sun, when he says that Aurora had rosy fingers, and perfumed the air with roses.

That the rose was known among the Greeks long before

the time of Homer is evident, for while he used the qualities of the rose in making similes, Greek mythology shows that the rose had been dedicated to the gods of Olympus much earlier. Because of the natural blending of its brilliant colors into each other, just as the shades of night blend and disappear in the rising sun, the rose was consecrated to Aurora. While Greek mythology attributes the origin of the rose to several of the Olympian deities, the generally accepted fable is that Flora one day found dead a favorite nymph, whose virtues were only exceeded by her incomparable beauty. Desiring to perpetuate the memory of her favorite, Flora appealed to the gods of Olympus to change the dead body into a flower which would be superior to all other flowers, and which all other flowers should acknowledge as their queen, the new flower to have blended in it the good qualities of the deities. So Venus gave to the new bloom form, Bacchus bathed it in nectar, Apollo loaned it the vivifying power of his beams of light, and perfume was the gift of Vertumnus. Pomona contributed the fruit, while Flora reserved for herself the color; and as blue is a cold color, suggesting death, she withheld this pigment, wherefore there can be no blue roses.*

That the Olympian gods determined that the rose should be the queen of flowers is established by the poem of Sappho, about 600 B. C., who wrote of the rose in these words:

Would Jove appoint some flower to reign
In matchless beauty on the plain,
The Rose (mankind will all agree),
The Rose, the Queen of Flowers should be.
The pride of plants, the grace of bowers;
The blush of meads, the eyes of flowers;
Its beauties charm the gods above;
Its fragrance is the breath of love;
Its foliage wantons in the air,
Luxuriant, like the flowing hair;
It shines in blooming splendor gay,
While zephyrs on its bosom play.

Not only was the rose consecrated to Aurora but it was also dedicated to other gods of Olympus, among which was Harpocrates, the god of silence. The fable is that Cupid gave a rose to

*Evidently the Olympian deities had no hint of what their German descendants could accomplish—for now we have the rose "Veilchenblau."—EDITOR.

Harpocrates to keep silent regarding some of the clandestine meetings of the other gods; therefore the rose became a symbol of secrecy. From this arose a custom of the tribes, later, of suspending a rose from the ceiling of their meeting chambers while the council was in session, the presence of the rose indicating that what transpired was to be held a secret. Such is the origin of the term "sub-rosa," indicating that the matter had been transacted "under the rose."

Sappho gave the rose the name in literature which it bears unto today. Further, nearly every Greek poet and writer of the sixth century B. C. and succeeding years wrote something about the rose, which strengthens the opinion that the rose was widely cultivated in ancient Greece. Anacreon (652 B. C.), who was regarded as the leading wit and humorist of the day wrote:

Fill the bowl with rosy wine;
Around our temples roses twine,
And let us cheerfully awhile
Like the wine and roses smile.

Ancient Macedonia was also a home of the rose before the Christian era, as Herodotus (450 B. C.) wrote about the roses in the gardens of the rich King Midas. In speaking of these roses, Herodotus said some of them had sixty petals and a most delightful perfume. Simmias of Thebes about the same time contributed the information about the roses opening their petals over the grave of Sophocles, who had then been dead about fifty years, thus showing that the Greeks at that early age used the rose for decorating graves as well as in their celebrations.

The Island of Rhodes, which had borne many different names in ancient history, is indebted to the culture of the rose for the name bestowed upon it about 405 B. C. by the Greeks. They named it the Isle of Roses, the Greek for roses being Rhodon. In collections of ancient coins and medals are to be found medals of Rhodes, when it flourished as an empire, with a rose on the face of them.

While the Greek poets had sung the praises of the rose for several centuries, it remained for Theophrastus (327-288 B. C.), the Greek philosopher, who succeeded Aristotle as head of the lyceum, to give us the first botanical description of the rose. Theophrastus wrote two books on "Researches about Plants"

and they show him to have been a thorough inquirer. Search has failed to disclose any other ancient work on the rose until the time of Pliny (23 A. D.), the Roman naturalist who reviewed the work of his Greek predecessor. According to Parsons, who has evidently given much thought and study to these ancient writers, "the number of species known to the ancients was small as compared with the number now recognized by the botanists. Pliny, with whom we find the most detail on this point, says that the most esteemed were those of Præneste and Pæstum, which were perhaps identical; those of Campania and Malta, of a bright red color, and having but twelve petals; the white roses of Heraclea, in Greece, and those of Alabande, which seem to be identical with *R. centifolia*. According to the Roman naturalist and Theophrastus, they grew naturally on Mount Panga and produced there very small flowers; yet when the inhabitants of Philippi went there to obtain them, the bushes on being transplanted produced much improved and more beautiful roses. Pliny speaks also of some other species: one with single flowers, another which he terms Spinola, and also one of Carthage, which bloomed in winter. Unfortunately all that we find of his works on this subject is generally very obscure and it is difficult to compare any he describes with those known at the present day."

From the study of ancient history it is evident that the Romans acquired their love for the rose and learned to cultivate it from the Greeks, although it is possible that they also acquired knowledge from the Egyptians. The Romans early adopted the rose to give expression to their love for the luxurious. Cicero (106-43 B. C.) in his "De Finibus" speaks of the custom prevailing in Rome at that time of reclining on couches covered with roses. Commenting on the luxury of the day, and with a word of warning, he wrote, "Regulus, in his chains, was more happy than Thori in drinking on a couch of roses."

Verres, who was governor of Sicily and one of the greatest extortionists in the world's history, was severely criticized by Cicero, who reproached him not only for the robberies he committed and the cruelties he enforced, but also for his effeminacy and licentiousness. Cicero, in reviewing Verres' life, said: "When spring commenced, that season was not announced to

him by the return of Zephyr, nor by the appearance of any heavenly sign; it was not until he had seen the roses bloom that spring was visible to his voluptuous eyes. In the voyages which he made across the province, he was accustomed, after the example of the kings of Bithynia, to be carried in a litter borne by eight men, in which he reposed, softly extended upon cushions of transparent materials and filled with roses of Malta, having in his hand a net of the finest linen full of these flowers, whose fragrance incessantly gratified his eager nostrils."

Of those identified with Roman history prior to the Christian era, no one used roses with more lavishness than did Cleopatra on her memorable campaign to ensnare Mark Antony. For several successive days Cleopatra gave a great festival, and on the fourth day she caused the floor of the banquet hall to be covered with roses to the depth of eighteen inches. These were retained in a fine net so that the guests in walking over this carpet would not scatter the blooms.

The custom of using roses for garlands was adopted by the Romans from the Greeks. Horace (65 B. C.), in his poem to Quintus Dellius said, "Bring garlands of roses," and in his invitation to Macænas he wrote "Roses fair, to deck your hair." Horace loved luxury, and according to Parsons "When he abandoned himself to pleasures, he was always supplied with roses. In congratulating one of his friends on his safe return from Spain he recommended that these flowers should not be wanting at the festival. On another occasion he told his favorite servant that he disliked the pompous displays of the Persians and escaped them by searching in what place the late rose was found. Drawing a picture of luxurious ease for his friend Hirpinus, he speaks of 'lying under the shade of a plane or pine tree, perfuming our spotless hair with Assyrian spikenard and crowning ourselves with roses.' The use of crowns of roses as objects of luxury is well authenticated, for among medical men of antiquity, endeavors were made to determine what kind of flowers were suitable to place in crowns without detriment to health; and according to report made on this subject, parsley, the ivy, the myrtle and the rose possessed peculiar virtues for dissipating the fumes of wine."

Rose culture had made great progress in Rome at the advent

of the Christian Era. The Romans not only grew roses with the greatest profusion in their gardens but there were large and extensive commercial growers, the demand for roses for the various fêtes being so great that the private gardens could not supply them. In thus developing rose-growing the Romans soon found that plants responded to heat; in 4 B. C. the Romans were producing roses in winter in hothouses heated with pipes filled with hot water. Seneca (4 B. C.—65 A.D.), who educated Nero, was quite shocked over this supposed violation of the laws of nature, and declaimed against the use of greenhouses and the production of roses in winter. His protests were unheeded, and during the reign of Domitian (81–96 A. D.) there were many rose-producing plants in Rome.

The Egyptians, hoping to win the favor of Domitian, sent roses from tropical Egypt in the winter, but even an undertaking of such import was laughed to scorn by the Romans, who claimed they had finer roses in Rome at that time of the year than Egypt could produce. Martial, who was the favorite wit of Rome in the time of Domitian, wrote: "The ambitious inhabitants of the land watered by the Nile have sent thee, O Cæsar, the roses of winter, as a present valuable for its novelty. But the boatman of Memphis will laugh at the gardens of Pharaoh as soon as he has taken one step in thy capital city. . . . Wherever he wanders or casts his eyes, every street is brilliant with garlands of roses. And thou, O Nile, must now yield to the fogs of Rome. Send us thy harvests and we will send thee roses."

Throughout the days of the Roman Empire roses occupied a place of importance, especially in festivals and celebrations. They were associated with every luxury of the empire. In the writings of Lucretius (96 A. D.) we find a description of the festival of Cybele, in which roses were used in the greatest profusion. According to Parsons the greatest exhibition of lavishness in using roses is to be found as reported by Setonius, of the festival given by Nero in the Gulf of Baiæ, the expense for roses alone for this event being more than four million sesterces—about \$100,000.

While it was the custom of the early Romans to use crowns of roses for many occasions, this practice was prohibited by the

early Christians, on the grounds that such crowns were too closely associated with paganism. Clement of Alexandria, who was born 150 years after the beginning of the Christian Era and was head of the catechetical school at Alexandria (190-203 A. D.), thought it improper for Christians to crown themselves with roses.

Although the early Christians were opposed to crowns and garlands of roses, they nevertheless continued to grow the plants, and gradually, with the growth of the Roman Catholic faith, the rose was introduced into church ceremonies. The rosary, or string of prayers, which was first made by stringing rose-pods, was established as an institution of the church in 667 A. D.

The Catholic church was the first to adopt the rose in church ceremonies. The first celebration where it was so employed was the festival of the rose, still observed in Spain and some other countries, and which marks the anniversary of the victory of the Christians over the infidels at Lapante. Even prior to this time, although it did not figure in any great celebration or take on the importance it did in later years, the church adopted the custom of awarding the golden rose. This is probably today, and has been in modern times, since the Crusades started, the most distinguished gift or mark of reward bestowed by the Roman Catholic church.

The history of the rose during the dark ages, when it was kept alive by the Moors and Persians; the part it took in the activities of Mohammed and his hordes, are history, as is the first record of the rose in Ireland, how it figured in the wars of early England, and its travels into France and Germany.

From these records of the ancients we can see that the rose was the queen of their flower-gardens, just as it is today the queen of ours. The rose of antiquity, as does the rose of today, exercised an unique charm, through its brilliancy of color, the elegance and beauty of its form, and its delightful perfume. It appeals more strongly today to us for the part it has played in the world's history, for in its career it has never lost its character or distinctiveness, and its position today is the same as it was nearly 3,000 years ago, when it was justly crowned "The Queen of Flowers."

Roses—Clergy—Churches

By REV. EDMUND M. MILLS, D.D., Litt.D.
President Syracuse Rose Society, Syracuse, N. Y.

EDITOR'S NOTE.—The author of this article is entirely too modest. He does not tell of his own long life of beneficence to mankind through the spreading of the love of the rose as well as the Gospel, nor does he even hint of the way in which he has promoted the rose in Syracuse, the Rose Society of which, under his presidency, is a notably strong one.

In the 1920 Annual, Dr. Mills told us of "Outdoor Rose-Growing as a Recreation." He has made it a recreation wherever his busy life as a successful Methodist clergyman led him, and rose smiles follow him. Dr. Mills is the Dean Hole of America, and the American Rose Society is honored by his participation in its affairs.

FOR thousands of years in many lands, poets have been singing the charms of the rose. Some of these songs have been floating down the centuries, "like flowers on the streams of summer;" but to the mind of the writer, the most comprehensive tribute ever paid to the claims of the rose is found in a poem published in *Harper's Monthly* over half a century ago:

Roses always roses are.
What with roses can compare!
Search the garden, search the bower,
Try the charms of every flower,
Try them by their beauteous bloom,
Try them by their sweet perfume.
Morning's light it loveth best
On the rose's lap to rest,
And the evening breezes tell
The secret of their choice as well.
Try them by whatever token,
Still the same response is spoken.
Nature crowns the rose's stem
With her choicest diadem.

Roses always roses are.
What with roses can compare!
Roses are of royal birth—
Loveliest monarchs of the earth.
Not the realms of flowers alone,
But human hearts their scepter own.
They, more than all the flowery throng,
Can wake the poet's soul to song.
They, more than all, possess the power
To cheer and soothe life's passing hour.

What the sweetest influence shed
Around the grateful sufferer's bed?
What with holiest light illumine
The grief and darkness of the tomb?
Mark what flowers the maiden's hand
Gathers for her bridal band!
To every flower some charm is given—
For each reflects the love of heaven—
But roses so all charms combine.
That roses rule by right divine,
And roses still must ever be
The garden's royal family.

Doctors, lawyers, and clergymen furnish a larger per cent of amateur rosarians than any other callings, and the "Men of the Cloth" are at the front of the leaders. The greatest rose society of the world is the National Rose Society of England, founded by the poetic and witty Dean Reynolds Hole. As long as men follow the "gentle" art of fishing, fishermen will prize and read Isaak Walton. So Dean Hole's "Book About Roses" will never be supplanted; it will ever be held a classic in the rose world. Not a few of Dean Hole's successors in the presidency of the National Rose Society have been clergymen.

Then as authors on the rose we have: "The Book of the Rose," by Rev. A. Foster Melliar; "Roses: Their History, Development, and Cultivation," by Rev. J. H. Pemberton. The last named is not only an author of repute among rosarians but also the originator of a number of valuable roses.

In England the national flower is the rose. There, in numbers and successes, clergymen are conspicuous as amateur rosarians. Though the writer had determined to confine his observations to English-speaking peoples, he cannot overlook the tradition that the crested moss rose, otherwise known as the "Chapeau de Napoleon" (Hat of Napoleon), was discovered by a Roman Catholic priest as he walked (in his evening meditations) by an old monastery wall in southern France.

In America we have been so busy in doing practical things, in developing a new world, that amateur rosarians have not yet come to their own. Over vast areas rose-lovers are so far apart that they work at a great disadvantage. They are without the information and inspiration that a local rose society could give them, and many of them probably do not know as yet that

there is an American Rose Society. A rose catalogue is their only book of rose-lore! But as the country becomes more thickly populated, these rose pioneers get in touch with one another; and where a few rose cranks get together something is likely to happen! Their information and experiences are syndicated. Their enthusiasm is intensified.

Frequently some clergyman is not only the missionary of the Gospel but of the rose as well. Within a radius of fifty miles from where this article is written are as many ministers, in country and village, who have from a score to a hundred rose bushes. They are too distant from any rose society to attend its meetings, but their rose bushes are leavening the communities where they live with a knowledge of and love for the rose.

Until within the past five years the American Rose Society has done little to encourage and help the amateur. On the contrary, the National Rose Society of England, from the days of Reynolds Hole, has helped organize the amateurs into local societies, and has disseminated rose information. Over there, too, the men in trade, growers of cut-flowers and rose bushes, have been wiser in their day and generation than some of their brethren in America. With some, love of the rose is a natural taste; with others, it is an acquired taste. Gentlemen of the Trade, the best way to make a large market for cut-flowers and plants is to increase the number of those who want the things you have to sell. The amateur rosarian is your advance agent, and though unpaid, is not to be regarded as a negligible quantity. He has no desire to manage your business, but wisdom and fair play suggest that your relation to him and regard for him should be on some other basis than that of the "loaves and fishes."

There are six villages known to the writer that are rose villages. The homes are rose-embowered, there are many lovely rose-gardens, and some gardens that boast fine rose bushes because rose-loving clergymen have lived there. I mention one of these villages in central New York. Nearly two-score years ago in that village a Roman Catholic priest and his next-door neighbor, an elder in the Presbyterian church, were enthusiastic rose-growers. A friendly but robust rivalry existed between them. They had no Hybrid Teas, except possibly *La France*. They did have Hybrid Perpetuals and Moss roses and the Tea

rose, White Maman Cochet (each had a hundred White Maman Cochets). They made that village a veritable rose-garden. Mme. Caroline Testout is no more the favorite rose of Portland, Ore., than White Maman Cochet is the favorite rose of that village to this day.

Before me lies the appeal of a bishop to the pastors of his area. He exhorts them to have their back yards filled with the best fruit trees and their front yards divided between well-kept lawns and flower-gardens. He reminds them that their back and front yards can be made to preach the gospel of the useful and beautiful seven days of the week.

While America is yet notably behind Europe in the number of its eminent clerical rosarians, it has nevertheless some names of nation-wide fame. Rev. Spencer S. Sulliger, of the state of Washington, is learned in all the lore of the rose, a rose-grower of repute and a Judge in the Supreme Court of the Rose at great exhibitions of the Northwest.

Probably the most eminent clerical originator of new roses in America is the Roman Catholic priest, Father George M. A. Schoener, Ph. D., now of Santa Barbara, Calif., but formerly of Brooks, Ore. With a thorough scientific education as a preparation, study in the gardens of the Old and New Worlds, ten years were spent in collecting all known varieties of rose bushes and experimenting with them. Some of his new roses were startling creations. They awakened the liveliest hopes of the experts of the Northwest who saw them. But all these hopes were dashed to the ground by a fire that consumed his home and rose-garden.* The deep, dry mulch that surrounded his rose bushes caused them to fall an easy prey to the flames. Home, the collection of roses that it had taken him ten years to make, and the results of ten years of hard work, all gone in a single night!

These losses were followed by another greater—the loss of his health. He went to Santa Barbara, where he has fought his way back to health. With its restoration, enthusiasm and hope have revived. He has taken up his loved work again. Visitors to the rose shows where he has exhibited his new roses (like his new rose, The Pearl of the Pacific) are loud in their praises of them. Father Schoener's struggle, handicapped by

*See page 41 of the 1916 Annual for details.—Ed.

poor health, to regain his lost rose paradise reminds one of the pathetic efforts under like conditions that Sir Walter Scott, Mark Twain, and U. S. Grant made to recover their lost fortunes.

In Pennsylvania is a church society that annually pays the rent of the land on which it stands with one red rose. The ceremony of handing the rose to the heir of the man who rented his land to the church on such terms is attended by thousands, and has been honored by the presence of the Governor of the Commonwealth.

Hildesheim, Germany, boasts a church whose walls for a thousand years have supported the branches of a glorious rose bush. Forty generations of the men of that little German city have come and gone, while the Hildesheim rose bush has sung with its breath of perfume its "hymn of praise to heaven." The entire municipality is proud of its rose-clad church.

One of the pleasures of a rose-loving minister is the people he meets who are devoted to the queen of flowers. In the hill country of Madison County, New York, is the little village of Georgetown. In that village is a potted Bourbon or Bengal rose bush. It was "slipped" from a potted rose bush that had been in one family forty-nine years. The slip and the bush from which it was taken span fifty-four years.

How happy the minister would be if he could persuade men to be good as easily as he can persuade them to love the rose! The minister not only worships in churches, he has communion with heaven in his garden. He can sing with Thomas Edward Brown:

A garden is a lovesome thing, God wot!
Rose plot,
Fringed pool,
Ferned grot,—
The veriest school
Of peace, and yet the fool
Contented that God is not!
Not God in gardens, when the eve is cool?
Nay, but I have a sign:
'Tis very sure God walks in mine.



PLATE III. *ROSA WILLMOTTIÆ* in bloom at Bell Experiment Plot (See page 26)

Rose-Breeding in 1920 at Bell Experiment Plot

By DR. W. VAN FLEET

Department of Agriculture, Washington, D. C.

EDITOR'S NOTE.—It will be observed in reading this most interesting continuance of the progress-records with which Dr. Van Fleet has favored us in the *Annals* for 1916, 1917, 1918, 1919 and 1920, that he is not only continuing his painstaking hybridizations with the species previously reported upon, but extending them to other rare species. The ideals in mind are high, and the patient skill of the worker most notable. No such breeding work is proceeding anywhere else in the world, so far as can be ascertained.

Following will be noted the advancing of the arrangement for the dissemination through the agency of the American Rose Society of the new roses which Dr. Van Fleet deems worthy of introduction.

Attention is directed to Plate II, facing page 9, and to III, IV, V and VI.

THE season of 1920 at Bell Experiment Plot (Glendale, Md.) in most part was as favorable for outdoor rose pollination as the preceding year was adverse. The weather during the blooming months averaged more than ordinarily cool and clear, favoring the setting of fruits, and there was less interference from insect pests and disease than in any previous year. The harvest in matured seed was greater than heretofore and covered the widest range of species yet attempted, the special features borne in mind being hardiness, disease resistance, and good garden appearance of plants. Elegance, profusion, and continuity of bloom are of the highest importance, and every effort is made to develop these perfections in hybrid progeny. There are already too many weak varieties that produce a few exquisite blooms under exceptional conditions of culture, but new varieties that do not require incessant coddling are needed for American gardens.

Particular attention was given in 1920 to the utilization of the lesser-known northern species of both hemispheres, such as *Rosa inodora*, *R. pulvurulenta*, *R. Murielæ*, *R. hibernica*, *R. micrantha*, *R. involuta*, and *R. Jundzillii* of the Old World, our native *R. Macounii* and *R. nutkana*, and the most northern forms of *R. nitida*, *R. pratincola*, and *R. lucida* or *R. virginiana*. There is considerable diversity in garden adaptability among these extremely hardy wild roses, and crossings with the several

attractive new Chinese species and with highly developed florists' varieties may open up new features of value in the offspring. Seeds of most of the northern species are of slow germination, and probably several seasons will be needed to bring out their possibilities.

Taking the seedlings of past years in the order of bloom, we may begin with *R. Willmottiae*,* which opens its cheerful rosy purple flowers at Bell before the middle of May. This very distinct species has not generally succeeded in cultivation, but grows thriftily in the sandy loam soil at Bell, ripening a limited number of hips. The type has a most attractive drooping habit, the strong canes rising about five feet high before they curve, and it has attractive foliage throughout the growing season. In habit and coloration this wild rose gives, in early spring, essentially the decorative effect of the purple beggarweed, known to gardeners as *Desmodium penduliflorum*, a beautiful late autumn perennial, but on a much larger scale.

This striking new rose does not readily lend itself to hybridization, and the best progress is likely to be made with self- or chance-fertilized seedlings. Quite a number have already bloomed, some showing brighter colors and greater profusion of bloom than the parents. A hybrid with *R. Hugonis*, as might be expected, is so inferior in decorative effect to either parent as to be an almost pitiable object. The blend with *R. altaica* loses in grace of habit and foliage effect, but has large, blush-white blooms, very well placed. Hybrids with Teas and Hybrid Perpetuals show weakness in growth and are slow in reaching the bloom stage, but those with deep red forms of *R. rugosa* are very encouraging in color, form, and abundance of bloom, the general aspect being that of a graceful, bright-flowering, miniature *R. rugosa* adapted for edgings and rockeries.

Rosa Hugonis blooms about the same time and occasionally anticipates *R. Willmottiae*, its clear yellow flowers harmonizing well with the rose-purple of the latter species. About 250 hybrids and self-seedlings have bloomed to date, and a considerable number of new blendings are coming on. The hybrids with *R. altaica* and the white forms of *R. rugosa* run a close race in attractiveness. Both agree in boundless profusion of bloom,

*See Plate III, facing page 25.

the large, widely opened flowers being so thickly placed as to almost hide the branches.

All the seedlings with *R. altaica** as the pollen parent have single flowers three inches and more in diameter, the shades varying from porcelain-white to sulphur-yellow. There is great diversity in character, poise, and finish of the blooms, suggesting need for critical selection to secure the best possible combination of characters. The plants are noticeably graceful in habit, the long shoots arching to the ground with the weight of buds and bloom, while the foliage is clean and persistent. The hybrids with *Rugosa* have larger flowers, several being quite double, and the shades vary from cream-white to blush-pink and salmon. The growth is heavier, with quite characteristic *Rugosa* foliage, and the plants bid fair to form large clumps, five or more feet high, at maturity. The combination of *Hugonis* with *Rugosa* has so gained in promise with repeated bloom that greater attention will be given it in future.† Several crosses of *Hugonis* with *Harison's Yellow* opened blooms in 1920, showing deeper coloring than the type and some duplication of petals. The foliage is dense, and the habit of the seedlings is upright.

Blends of *Hugonis* with garden forms of *R. lutea*, such as *Persian Yellow*, *Austrian Brier*, and *Austrian Copper*, have yearly been attempted and only two weak seedlings secured, but the past season better success in securing seed was had by the use of the type known to botanists by the libelous designation of *R. foetida*. In plant and flower this type is scarcely to be distinguished from the familiar single-flowered form of *Austrian Brier*, but appears to have more active pollen. There is no unpleasant odor in leaf or flower, but rather a faint sweetbrier fragrance in the young growth on damp mornings.

A hybrid of *R. omeiensis*, with *R. Hugonis* as the pollen contributor, is attractive from its dense, arching habit, forming a most symmetrical mound of growth, with its fine glossy foliage enduring until December. The only bloom developed on the plant last spring resembled that of *Hugonis* in its yellow coloring and in having five petals, instead of four, as in the seed parent. The attractive flowers of *R. omeiensis*, as well as those of the closely related *R. sericea*, are pure white and composed of but

*See Plate IV, pages 28-29, for *Hugonis-Altaica* seedling.

†See Plate II, facing page 9.

four broad, rounded petals. All other well-known rose species have five-petaled blooms.

The self or chance seedlings of *Hugonis* are remarkably uniform in flower, foliage, and habit, rarely being distinguishable from the wild parent, but vary to a considerable degree in fruitfulness. We now have seedlings far superior to the type for breeding, producing good seeds in quantity and accepting a diversity of pollen.

The closely related *R. xanthina*, sent over from China in single- and double-flowered forms by the late agricultural explorer, Frank N. Meyer, shows considerably more variation in its cross and self-pollinated seedlings, the flower colors ranging from paper-white to a somewhat deeper yellow than has yet been developed in *Hugonis*. Many seedlings are free from the penetrating formic acid odor so objectionable about the young growth of the type in moist weather, and will consequently be preferred for planting near dwellings.

Hybrids of *R. xanthina* with *R. Hugonis* are very erect in habit, with dense foliage and attractive brown-red stems in winter. They tend to grow taller than either parent species, and should form excellent material for dense boundary hedges. The widely opened white or yellow blooms are very thickly placed in early spring, and are followed by glossy red or purple-black fruits that last until midsummer. The blends with *R. altaica* are less striking than the *Hugonis*-*Altaica* hybrids, as the flower colors run in lighter shades, but have merit in their good foliage and their interesting armature of broad-based prickles.

Little benefit has been secured by working with *R. altaica* except the fine hybrids with *Hugonis*. While so attractive in itself that it is grown as the "Northern Cherokee Rose," though it belongs to the *R. spinosissima* group, only resembling the Southern Cherokee rose in its beautifully finished white blooms, it appears to fall off at once when crossed with other species and varieties.

Rosa hispida, a nearly related form, very erect in habit, with straw-colored blooms, hybridizes readily with many varieties, and produces charming seedlings with single to densely double blooms of a great range of color, soon showing as many as three



PLATE IV. Hybrid of *Rosa Hugonis* × *R. altaica*, two years old, blooming May 20, 1920, at Bell Experiment Plot
(See page 26)



PLATE V. Van Fleet Hybrid of *Rosa Wichuraiana* × *R. Pernetiana* at Bell Experiment Plot (See page 31)

shades of pink in the same petal. *Rosa hispida* × Sunburst produces large, full buds and blooms, bright canary-yellow until fully expanded, and should make a fine hardy border rose.

Rosa bella, among the new-comers, is likely to command much future attention. It is dwarfer and more compact in growth and much hardier than other species recently introduced from North China. The cherry-red blooms cover the branches soon after *R. Willmottiae* and *R. Hugonis* pass out of bloom, and continue to appear for a longer period than most wild roses of the season. They are slightly fragrant in themselves, but the very agreeable fruity odor noticed about the plant in the morning hours, and which may be likened to the fragrance of *Azalea nudiflora*, or Pinxter Flower, appears to be produced by a glandular surface on the young growth and pedicels. The type plants at Bell mature few hips, but seedlings are more fruitful, and a series of promising hybrids have been raised, the best one being a blend with *R. Malyi*, having much brighter red flowers than either parent, with intensified fragrance, good compact habit, and ornamental fruit. The outcome of crossing this fine species with highly developed florists' roses is awaited with interest.

Rosa Moyesii will always challenge attention in its typical form, the deep red blooms standing out distinct from all other wild roses, but is far from easy to propagate and grow. Plants show great vigor for a few seasons, throwing up strong, tall canes, but there is a constant tendency to die-back in the mature wood, irrespective of disease or winter injury. This species, in common with most introductions from North China, appears to thrive best in light soil and on its own root system. It is not thoroughly at home on any stock we have yet tested, but it is difficult to secure plants except by budding or grafting, as cuttings and layers rarely form roots. Self-pollinated seedlings grow well but do not retain the intense red coloring of the type, the flowers opening into crimson shades and even light rose and pink. Hybrids with American rose species, such as *R. Engelmannii*, *R. arkansana*, and *R. nitida* have all the depth of color of *Moyesii*, and added brilliancy from the yellow stamens conspicuously displayed in the center of the blooms. *Moyesii* itself has reddish brown anthers and filaments, giving the interior of the flower

a rather somber aspect when not in bright sunshine. The hybrids with Old World species that have bloomed are *R. Malyi* $\times$ *R. Moyesii*, *R. canina* $\times$ *R. Moyesii*, and *R. Moyesii* $\times$ *R. cinnamomea*.

The Malyi blend was noted in the American Rose Annual for 1919 (page 32). The blooms almost duplicate those of *Moyesii* in color and form, but the habit is dwarf and compact and the plant apparently very hardy. The Canina-Moyesii crosses gain in beauty with respect to bloom, and should certainly be widely planted. While habit and foliage are much like a moderate-growing dog-rose, the blooms are vivid ruby-red, lighted with prominent golden anthers and very thickly placed on the two-year canes. Like the other *Moyesii* hybrids, they are vigorous growers, hardy and free from disease. The hybrid with *R. cinnamomea*—the only good one yet secured with *Moyesii* as a seed parent—first bloomed the past season, and promises to be the best of all in size and brilliancy of bloom, fairly beating *Moyesii* in intensity of coloring. The plant appears to have no defects except that of profuse suckering, common to the Cinamon rose, which, however, will insure rapid increase of the hybrid plants on their own roots.

We have undertaken to hybridize *Moyesii* with every ornamental hardy rose species of both hemispheres that can be grown about Washington, and also with promising garden varieties that may become available, as far as these crosses can be effected by painstaking work. More than thirty of these blendings have been carried to the point of seed production, and new varieties combining the unique characteristics of this beautiful importation from China may yearly be expected.

A few other of the new oriental roses are showing possibilities for breeding. *Rosa setipoda* produces striking hybrids with *R. nitida* and *R. lucida*, while *R. sertata* has at last produced seeds when fertilized with pollen from diverse species and varieties. *Rosa multibracteata* and *R. filipes*, the latter quite near *R. Helenæ*, are now giving encouraging results, and may add unique features to our rose-gardens. A considerable number of hybrid seedlings of *R. multiflora cathayensis*, *R. Jackii*, and *R. Gentiliana* have reached their second year, and new crosses are under way. *Cathayensis* and *Jackii* are valued for extreme hardiness and the

comparatively large blooms the typical forms produce. *Rosa Gentiliana* is quite tender at Bell, but develops a charming profusion of milk-white flower-clusters on the branches that escape winter killing, so that it appears well worth developing for southern localities.

Rosa Wichuraiana and *R. Soulieana* continue to produce beautiful novelties that should be distributed for trial throughout the country. A hybrid of *Wichuraiana* and *Pernetiana* shows very large and full flowers.* Bell Experiment Plot does not possess equipment for extensive propagation of new hybrids and selections, and it is hoped that a working arrangement will soon be perfected with the American Rose Society by which the most promising new roses produced here may be increased and widely disseminated at very moderate cost to the purchasers.

OLD-FASHIONED ROSES

The rose varieties of old gardens are not neglected at Bell. The typical Scotch rose of our forefathers, *R. spinosissima*, is yielding beautiful new seedlings with intense red as well as paler shades in both single- and double-flowered forms. The Boursault rose, *R. Lheritierana*, is capable of developing really fine new varieties, and *R. gallica officinalis*, source of the red rose petals and much of the rose attar of commerce, is so bright and attractive that it appears well worth blending with *R. Moyesii* and other deep-colored wild roses.

The possibilities of the sweet brier in its less known forms, such as *R. agrestis*, *R. Seraphinii*, and *R. ferox*, are far from exhausted as regards the development of varieties with fragrant foliage and handsome flowers. The much-admired Harison's Yellow gives an occasional seedling of the Scotch rose type that nearly equals its parent, and one or more may eventually be raised that will supersede it in garden value.

Time is an insistent element in breeding work of this character as several seasons are often needed to carry the seedlings through all phases from pollination to characteristic bloom, but each succeeding year brings its encouragement as well as attending disappointments.

*See Plate V, pages 28-29.

The Distribution of Some New Van Fleet Roses

By ROBERT PYLE, President American Rose Society

WE in America need, and no one knows it better than Dr. Van Fleet, a race of roses that shall be as sturdy as were our pioneer forefathers who tamed the Wild West. Abundance and freedom and length of season of bloom, together with fragrance—all these qualities are sought for in the ideal roses to grace the homesteads of farmers and workmen as well as the fine estates and city parks.

Our well-known Teas and Hybrid Teas, most of them brought from Europe, have their limitations. Real race virility is a prime requisite for which we must look elsewhere. Those familiar with that wonderful publication, "Genus Rosa," by Miss Willmott, will better understand my reference to the interesting rose species indigenous to the temperate zones. Out of some 37 important species but two, *R. indica* and *R. gallica*, have been extensively used thus far, and probably but three or four others have formed a basis for roses in active cultivation today. (I refer last above to the Multiflora, Wichuraiana, Gallica and Rugosa species.)

So far as I know, Dr. Van Fleet, surely a "Master Servant of Nature," has pioneered past the frontiers of former experiments, and has operated in a field otherwise little explored. Cinnamomea, Hugonis, Alpina, Microphylla, Xanthina, are names grown familiar to those who have visited his experiment plot near Washington, D. C. Roses from far-off Siberia, China, and the Himalayas; also Sericea, Bracteata, Ecæ, Rubiginosa, and Villosa; these are the species with which he works.

Released for his task (a labor of many years) by the Department of Agriculture, and in particular by Prof. L. C. Corbett, of the Bureau of Plant Industry; aided by the far-reaching arms of the Federal Bureau of Foreign Plant Introduction; during wartime spading the ground round his pets with his own two hands, and alone, except as he was spurred by the heroic spirit of a life-long companion; after years of patience unbelievable,



PLATE VI. New Hybrid Rose, "W. C. 124" (*Rosa Wichuraiana* $\times$ Hybrid Tea) in bloom in 1920 at Bell Experiment Plot. Originated by Dr. W. Van Fleet; received three first prizes at Portland (Ore.) Test-Garden in 1920. (See pp. 33, 117)

and with toil that will never be known; now at last the great growing rose public are to be invited to share in the rewards of this labor. I write literally; little else does the hybridizer get.

It must be understood that at Bell Experiment Palt there are no facilities for extended propagation, nor would it be proper to divert a moment of the master-worker's time to such perfunctory work. The Bureau of Plant Industry desires, as does Dr. Van Fleet himself, to get his "new creations" in roses to the public by an arrangement that will permit them to be tested out at practically the cost of propagation and dissemination. The hybridizer has no royalty, no profit, in any distribution; as he writes, "My compensation, with which I will be more than satisfied, lies in the opportunity of furthering interest in hardy roses for home planting."

To meet this situation, and in line with the announcement on page 30 of the 1920 Annual, in a letter from Dr. Wm. A. Taylor, Chief of the Bureau of Plant Industry, the American Rose Society has agreed to a tentative arrangement for helping to get these roses into proper circulation. The Society is incorporating as a corporation "not for profit," in order to make a proper contract with the Federal Department of Agriculture.

It is not contemplated to engage directly either in propagating or in selling the three new rose varieties ready for distribution, but instead to offer them to suitable growers in an equitable fashion, with a limit date for dissemination and a limit price for sale, and upon the understanding that any remainder of funds to the American Rose Society shall be devoted to furthering rose research.

Several years must elapse before plants of the new roses are generally available, it should be understood. Meantime, descriptions furnished by Dr. Van Fleet are appended, giving an idea of the first three varieties expected to be sent out.

1. *W. C. 124. R. Wichuraiana* × a pink Hybrid Tea. Pillar rose type. Makes a fine, strong, self-supporting rose 6 to 8 feet high, with large, glossy foliage, resistant at Bell to all diseases. Blooms with great freedom in spring and bears a considerable number of fine buds in summer and fall. Flowers well-formed, semi-double, bright, clear rose-pink, with salmon base to the petals; the largest in size of any *Wichuraiana* hybrid, generally exceeding 4 inches in diameter. Hardy; readily propagated. (See plate VI, facing page 32.)

2. *W. C. 237. R. Wichuraiana* × a Hybrid Tea. Pillar or bedding type. Lower grower with longer canes than *W. C. 124*. Needs some support as a

pillar or as a low, mound-like bedder. Foliage dark, glossy, and disease-resistant. Excessively floriferous, the large, luminous cherry-red blooms covering the entire plant in spring. The rich color stands out distinct from all other roses of its class.

3. The third variety has not been assigned a number. Parentage: Silver Moon $\times$ Isabella Sprunt. Climbing or pillar type. Glossy foliage and habit of Silver Moon but probably less rampant in growth. Bears a profusion of long, elegantly formed buds, light canary-yellow with deeper center, on long stems. Open blooms cream-white, more double than Silver Moon. Appears hardier than either parent. A valuable florist's rose, as the buds last long in perfect condition.

Our Native Roses

By CHAS. E. F. GERSDORFF, Washington, D. C.
(With drawings by the Author)

EDITOR'S NOTE.—Far too little use is made in our broad landscape plantings of the lovely "wild" roses with which our land is furnished from ocean to ocean and from the Gulf of Mexico to far north of the Great Lakes. Indeed, many rose-lovers do not even know of them, or know more than one or two species. In his carefully prepared text, and in his accurate and striking drawings, Mr. Gersdorff has set forward these admirable shrubs for the members of the American Rose Society.

THE desirability of utilizing our native roses, commonly called wild roses, for various purposes in landscape design, as well as a cover for unsightly places, embankments, and the like, is being gradually recognized by our landscape gardeners and rosarians. I believe that if the habits and beauty of these wild roses had long since been realized they would have been extensively availed of.

In the hope that they may come to be used more widely in garden and other plantings, I have compiled the following list, with full descriptions, giving the native habitat and the assumed adaptability to the various conditions of garden and landscape design.

As these roses vary in height and habit of growth, they may be used for greatly varying purposes. They can be grown in situations where few other plants would survive. There are species found all over this country, so that no section need be without them. They will not, with few exceptions, lend themselves to garden culture such as is given the hybrid roses. They need no petting, but do best when allowed to grow as in their native habitat.

In planting for landscape effect, it seems best to mix the varieties. A combination of different kinds breaks up a monotonous color scheme.^{1*} Dr. Wilhelm Miller² suggests that, in regions overrun by the rose bug, it is best to use species with dark-colored flowers. The bugs are worst in sandy regions.

The wild species are noted for their long life,³ and when planted this fact should be borne in mind. Never make the error of planting the wrong kind; be sure to select the ones which will grow where planted, and they will maintain themselves without special cultivation. Particularly should they be freely used in parks, where, if properly labeled, they will serve not only to decorate but to educate.

The following are the most commonly grown. With these I have grouped two species which, though they are not natives, are so thoroughly naturalized that I believe they should be included.



Rosa blanda (Smooth Rose). Syns: *R. virginiana* (not the true *R. virginiana*); *R. fraxinifolia*. Slender stems, 5 feet high, with few slender prickles or unarmed. Leaflets 5 to 7, $\frac{1}{2}$ to $2\frac{1}{2}$ inches long. Flowers usually several; pink; 2 to $2\frac{1}{2}$ inches across. Fruit globular, sometimes elongated. Blooms in May and June. Found from Newfoundland to New York, west to Wisconsin and Illinois;^{4, 6} also in Oregon near the sea.⁶

Rosa blanda Willmottiae. Stems red; leaflets smaller; flowers bright coral-pink.⁴

Rosa carolina (Carolina Rose). Syns: *R. humilis*; *R. parviflora*; *R. virginiana humilis*; *R. Lyonii*. Shrub 3 feet and sometimes to 6 feet high, spreading by means of numerous suckers, with slender prickles and usually numerous bristles. Leaflets 5 to 7, resembling *R. virginiana*, but narrower, thinner, and not shining. Flowers often solitary; pink.

*The number references are to the Bibliography on page 43.

Blooms in June. Found from Maine to Georgia, west to Wisconsin and Oklahoma.^{4, 6}

Rosa carolina florida. Has less hairy leaves than the type.⁵

Rosa carolina grandiflora. Syn: *R. humilis grandiflora*. Flowers 2 inches across; leaflets larger.⁴

Rosa carolina triloba. Syn: *R. humilis triloba*. Petals are three-lobed.⁴

Rosa carolina villosa. Syn: *R. humilis villosa*. Has thicker leaves.⁴



Rosa nitida (Shining Rose). Low, upright shrub, $1\frac{1}{2}$ feet high; branches covered with straight prickles and numerous bristles. Leaflets 7 to 9, narrowly oblong, bright green and shining above, $\frac{1}{3}$ to 1 inch long. Flowers usually solitary, pink, 1 to 2 inches across on slender stems. Blooms in June and July. Found from Newfoundland to Massachusetts.^{4, 6} To be found along margins of swamps and other low places.⁵

Rosa palustris (Swamp Rose). Syns: *R. carolina* (not the true *R. carolina*); *R. corymbosa*; *R. pennsylvanica*. Upright shrub, attaining 8 feet, with slender stems. Leaflets usually 7, elliptic to narrow oblong, $\frac{3}{4}$ to 2 inches long. Flowers pink and usually in corymbs, about 2 inches across. Fruit about $\frac{1}{3}$ inch high. Blooms from June to August. Found from Nova Scotia to Minnesota, south to Florida and Mississippi, preferring swampy or moist ground.⁴

Rosa palustris Nuttalliana. Has larger flowers appearing later and until September.⁴

Rosa setigera (Prairie Rose). Shrub attaining 6 feet, with long, prickly, slender recurving or climbing branches. Leaflets 3 to 5, 1 to 3 inches long. Flowers in rather few-flowered corymbs, deep rose fading to whitish, about 2 inches across; almost scentless. Fruit globular, $\frac{1}{3}$ inch across. Blooms in June and July. Occurs from Ontario and Wisconsin to Texas and Florida.⁴

Rosa setigera tomentosa. Syn: *R. rubrifolia*. Leaves more hairy beneath. Corymbs with more but smaller flowers.⁴

Rosa virginiana (Virginia Rose). Syns: *R. lucida*; *R. humilis lucida*. Shrub 6 feet

high with few or no suckers, prickles sometimes hooked. Leaflets 7 to 9, dark green and shining above, thickish, $\frac{1}{2}$ to $1\frac{1}{2}$ inches long. Flowers usually few or solitary, bright pink, about 2 inches across. Fruit $\frac{1}{3}$ inch high, depressed globular. Blooms June and July. Found from

Newfoundland to New York and Pennsylvania;⁴ western states, from Ohio to Louisiana, Arkansas, and Alabama.⁶ Well adapted for borders of shrubberies; handsome in summer with its shining foliage and bright pink flowers, and ornamental in winter with its fruits.⁴

Rosa virginiana alba. Has white flowers and green stamens.⁴

Rosa virginiana plena. Syn: *R. rapa*. Has double flowers.⁴



NATURALIZED ROSES

Rosa bracteata (Macartney Rose). Syn: *R. Macartnea*. From China and Formosa. Usually low-growing, with stout, hooked prickles. Flowers one or few, short-stalked, white, 2 to $2\frac{3}{4}$ inches across. Blooms June to October. Naturalized in Florida and Louisiana. Handsome half-evergreen climber. Not hardy north.^{4, 5}

Rosa laevigata (Cherokee Rose). Syns: *R. sinica*; *R. cherokensis*; *R. ternata*; *R. nivea*; *R. Camellia*; and Cherokee Rose. From China, Formosa, and Japan, naturalized in southern states. High climber; slender green prickly branches. Flowers solitary, white and rarely rose, $2\frac{1}{2}$ to $3\frac{1}{2}$ inches across; fragrant. Blooms in June. Not hardy north.^{4, 5}

The less-known species, some of which are decidedly beautiful and very desirable for use in the landscape, etc., are given here.

Rosa acicularis. Stems low, densely prickly. Leaflets 3 to 7, broadly elliptic to narrow oblong, $\frac{1}{2}$ to 2 inches long. Flowers solitary, deep rose, $1\frac{1}{2}$ to 2 inches across; fragrant. Fruit $\frac{1}{2}$ to 1 inch long. Blooms in May and June. Found from Alaska to Ontario and Colorado.⁴

Rosa acicularis Bourgeauiana. Syns: *R. Sayi*; *R. acicularis Sayi*. Leaflets glandular and downy beneath. Flowers larger, often $2\frac{1}{2}$ inches across. Fruit usually

globular. Ontario to British Columbia and Colorado.⁴

Rosa acicularis Engelmannii. Syn: *R. Engelmannii*. Similar to preceding. Fruit oblong, to 1 inch long. Colorado to British Columbia.⁴

Rosa arkansana. Has glabrous foliage. Found in Colorado.⁴

Rosa californica (California Rose). Stems 8 feet high, with stout hooked or straight prickles, often bristly. Leaflets 5 to 7, downy beneath or on both sides, often glandular, $\frac{1}{2}$ to $1\frac{1}{2}$ inches long. Flowers on slender, usually small stems over 1 inch across, few or several in dense corymbs, pink. Fruit usually with prominent neck. Blooms from June to August. British Columbia to California.⁴

Rosa cinnamomea (Cinnamon Rose). Stems slender, 6 feet high,



with hooked prickles; flowering branches sometimes unarmed. Leaflets 5 to 7, sometimes 3, on leaves of flowering branchlets, oblong, dull green, densely downy beneath, $\frac{1}{2}$ to $1\frac{1}{2}$ inches long. Flowers solitary or few, purple, about 2 inches across, on short naked pedicels. Fruit depressed globular, scarlet. May and June.⁴ Shores of the Oregon and from the Saskatchewan to the Mackenzie River.⁶

Rosa foliolosa. Low shrub $1\frac{1}{2}$ feet high; stems with rather few slender prickles, sometimes almost unarmed. Leaflets 7 to 9, narrow oblong, bright green and shining above, downy beneath on midrib, $\frac{1}{3}$ to 1 inch long. Flowers solitary or few, pink, about $1\frac{1}{2}$ inches across, pedicels and receptacle smooth or sparingly glandular hairy. Fruit globular. Blooms in May and June.



ROSA FOLIOLOSA



ROSA GYMNOCARPA

Arkansas and Oklahoma to Texas. A handsome dwarf shrub with graceful foliage.^{4, 5, 6}

Rosa gratissima (Fragrant-leaved Rose). Allied to *R. californica*. Leaflets smooth, bright green, thin, glandular and fragrant. Found in California.⁴

Rosa gymnocarpa. Slender stems, attaining 10 feet, with straight, slender prickles and bristles. Leaflets 5 to 9, broadly elliptic to oblong, $\frac{1}{2}$ to 1 inch long. Flowers solitary, on short lateral branchlets, pale pink, about 1 inch across. Fruit orange-red, globular, small; calyx drops before maturity. Blooms in June and July. British Columbia to California east to Montana.^{4, 5} Found in shady woods of Oregon.^{5, 6}

Rosa heliophila. Syn: *R. pratincola* (not the true *R. pratincola*). Low shrub to 2 feet. Stems very prickly, usually green. Leaflets 7 to 11, 1 to $1\frac{3}{4}$ inches long. Flowers in corymbs, pink, 1 to $1\frac{1}{2}$ inches across. Fruit globular, $\frac{1}{3}$ to $\frac{1}{2}$ inch across, red. Blooms in June. Manitoba to Montana south to Missouri and Texas prairies. Adapted to dry slopes and barren places.⁴

Rosa heliophila alba. Has white flowers about 2 inches across.⁴

Rosa illinoensis. Stems much branched; prickles straw-colored, slender, spreading, straight, unequal, a few in pairs. Leaflets 7, small, broadly oblong, obtuse, simply serrated, $\frac{1}{4}$ to $\frac{1}{2}$ inch long, glabrous on both sides. Flowers solitary, petals large, pure white, $\frac{1}{2}$ inch long. Native of the bare rocky districts of La Salle County, Ill. Habit like *R. spinosissima*.⁵

Rosa MacDougalii. Stems brown, much branched; prickles numerous, unequal, straight, spreading. Leaflets 5 to 7, small, oblong, obtuse, $\frac{1}{2}$ inch long, simply toothed, glabrous both sides. Flowers solitary, petals pink, middle size, styles very hairy. Found in the mountains of Montana and Idaho at a height of 3,000 feet. Habit resembles *R. spinosissima*.⁵

Rosa Macounii. Allied to *R. Woodsii*. Low shrub with rather stout deflexed prickles. Flowers small, pale pink. From Assiniboia to Wyoming.⁴

Rosa minutifolia. Dense shrub to 4 feet high. Branchlets downy, with slender brown prickles. Leaflets 5 to 7, $\frac{1}{6}$ to $\frac{1}{2}$ inch long. Flowers short-pedicelled, pink or white, about 1 inch across. Fruit hairy. April and May. California. Tender.⁴

Rosa mirifica. Upright shrub, 3 to 4 feet. Stems green, with slender, yellowish white prickles and numerous bristles. Leaflets light green, $\frac{1}{3}$ to $\frac{3}{4}$ inch long. Flowers solitary, deep rose-purple, $1\frac{1}{2}$ to 3 inches across. Fruit wrinkled, dull red, prickly, $\frac{1}{2}$ to $\frac{3}{4}$ inch across. April and May. Flowers again in August. Found in New Mexico, the White and Sacramento Mountains. This is one of the most beautiful and the most strikingly distinct of the American species. Not hardy north.⁴

Rosa mohavensis. Stems much branched; prickles slender, straight, spreading, very unequal, some in pairs. Leaflets 5 to 7, oblong, obtuse or subacute, $\frac{1}{2}$ to $\frac{3}{4}$ inch long, firm in texture, simply toothed, glabrous on both surfaces. Flowers solitary, petals small, pink, $\frac{3}{4}$ inch long. Fruit globular, naked, crowned with persistent sepals. Native of mountains of southern California. Has the habit of *R. spinosissima*.⁵

Rosa nutkana. Stems stout, 5 feet high with usually straight prickles and sometimes bristly. Leaflets 5 to 7, or sometimes 9 on some shoots, $\frac{1}{2}$ to 2 inches long. Flowers usually solitary, pink, 2 to $2\frac{1}{2}$ inches across. Fruit globular without neck. June and July. From Alaska to Oregon and Utah. Has the largest flowers of the western species.^{4, 5}

Rosa nutkana hispida. The receptacle is covered with bristly glandular hairs.⁴

Rosa pinetorum. Stems much branched; prickles very slender, straight, spreading, unequal, some in pairs. Leaflets 5 to 7, few,

oblong, obtuse, simply toothed, very thin, $\frac{1}{4}$ to $\frac{1}{2}$ inch long, glabrous on both sides. Flowers solitary, petals middle sized, pink, $1\frac{1}{2}$ inches long. Fruit small, globular, red, crowned with persistent sepals. Found in the pine woods of Monterey County, California. Habit comes nearest to *R. gymnocarpa*.⁵

Rosa pisocarpa. Stems thin, with slender, straight or ascending prickles, without bristles, sometimes unarmed. Leaflets 5 to 7, $\frac{1}{2}$ to $1\frac{1}{2}$ inches long. Flowers pink, about 1 inch across on short, usually smooth pedicels in several- to many-flowered corymbs. Fruit globular with a very short neck. June to August. British Columbia to Oregon.⁴



ROSA NUTKANA



ROSA PRATINCOLA

Rosa pratincola. Almost herbaceous, 1 to 2 feet high, usually flowering terminally and in corymbs from upright shoots of the season. Bark of stem green and glaucous; the prickles dark purplish, all rather slender and weak, a few larger and less slender than others, all straight, spreading or slightly deflexed. Leaves very ample for the plant; leaflets 7 to 11, obovate and oblong-obovate, sharply toothed. Native of the prairie regions of the west to northwest from Illinois and Missouri to the Dakotas and Manitoba, in eastern Kansas and Nebraska, but not in Colorado or near its borders. Color of flowers rosy crimson.⁵

R. sonomensis. Allied to *R. californica*. Low shrub to 1 foot. Straight prickles. Flowers small, in dense corymbs. Leaflets broad. California.⁴

Rosa spithamea. Allied to *R. californica*. Stems usually not over $\frac{1}{2}$ foot high, sparingly branched. Leaflets doubly glandular-serrate. Flowers usually solitary. California.⁴

Rosa stellata. Upright shrub to 2 feet. Stems with whitish prickles. Leaflets usually 3, downy on both sides, somewhat rough above, $\frac{1}{4}$ to $1\frac{1}{3}$ inches long. Flowers solitary, deep rose-purple, $1\frac{3}{4}$ to $2\frac{1}{4}$ inches across. Fruit prickly. April and May. New Mexico, the Organ and San Andreas Mountains. Not hardy north.⁴



2 IN.
ROSA STELLATA



2 IN. *ROSA WOODSII*

Rosa Woodsii. Stems to 3 feet high, with slender, straight or recurved prickles, often bristly. Leaflets 5 to 7, or sometimes 9, $\frac{3}{4}$ to $1\frac{1}{2}$ inches long. Flowers in corymbs and solitary, pink, rarely white, $1\frac{1}{2}$ to 2 inches across, on very short, smooth pedicels. Fruit globular, with short neck. June and July. Saskatchewan to Colorado and Missouri.^{4, 5}

Rosa Woodsii Fendleri.

Syn: *R. Fendleri*. Slenderer and often taller than type. Leaflets usually smaller. Flowers and fruit somewhat smaller. British Columbia to western Texas and New Mexico.^{4, 5}

SPECIES SUITABLE FOR PLANTING AS FAR NORTH AS BRITISH COLUMBIA AND POSSIBLY ALASKA

For dry slopes and barren places—*R. arkansana*, *R. heliophila*, *R. heliophila alba*, and *R. illinoensis*. For shady woodlands—*R. gymnocarpa*. For mixed groups the following should prove of value: *R. californica*, *R. cinnamomea*, *R. MacDougalii*, *R. nutkana*, *R. nutkana hispida*, *R. pisocarpa*, *R. pratincola*, *R. Woodsii*, and *R. Woodsii Fendleri*. For hedges, plant *R. californica*, *R. cinnamomea*, *R. nutkana*, and *R. nutkana hispida*. For bank covers and roadside planting, use

R. acicularis, *R. acicularis Bourgeauiana*, *R. acicularis Engelmannii*, *R. blanda*, *R. blanda Willmottiae*, and *R. virginiana*. *R. setigera* and *R. setigera tomentosa* should be used for covering fences, walls, pergolas, and the like.

SPECIES ADAPTABLE TO REGIONS HAVING CLIMATES LIKE OUR NORTHERN STATES SOUTHWARD TO MEXICO

For pergolas, summer-houses, roadside fences, and the like, use *R. setigera* and *R. setigera tomentosa*. For mixed groups, the following should be useful: *R. blanda*, *R. blanda Willmottiae*, *R. californica*, *R. cinnamomea*, *R. foliolosa*, *R. heliophila*, *R. heliophila alba*, *R. MacDougalii*, *R. Macounii*, *R. nutkana*, *R. nutkana hispida*, *R. pisocarpa*, *R. pratincola*, *R. virginiana*, *R. virginiana alba*, *R. virginiana plena*, *R. Woodsii*, and *R. Woodsii Fendleri*.

As suitable for hedges, I name the following: *R. californica*, *R. nutkana*, *R. nutkana hispida*, *R. virginiana*, *R. virginiana alba*, and *R. virginiana plena*. For low hedges, *R. foliolosa*.

For dry slopes and barren places, railroad embankments, and low hedges, plant *R. arkansana*, *R. heliophila*, *R. heliophila alba*, and *R. illinoensis*. For naturalization in shady woodlands, plant *R. gymnocarpa*.

In low, wet places the following will find a congenial home: *R. nitida*, *R. palustris*, and *R. palustris Nuttalliana*.

For bank-covers, railroad embankments, and roadside planting use the following: *R. acicularis*, *R. acicularis Bourgeauiana*, *R. acicularis Engelmannii*, *R. blanda*, *R. blanda Willmottiae*, *R. carolina*, *R. carolina florida*, *R. carolina grandiflora*, *R. carolina triloba*, and *R. carolina villosa*.

SPECIES WHICH CAN BE GROWN ONLY IN SUB-TROPICAL REGIONS

In groups or as solitary specimens: *R. mirifica* and *R. stellata*. For banks and roadsides: *R. bracteata*.

For pergolas, summer-houses, old trees, and fences: *R. levigata*.

SPECIES ADAPTED ONLY TO CLIMATES LIKE CALIFORNIA

For mixed groups: *R. gratissima*, *R. minutifolia*, *R. sonomensis*, and *R. spithamea*. For hedges: *R. minutifolia* and *R. mohavensis* will be found useful. For shady woodlands use *R. pinetorum*.

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Rosifying American Highways

By CHARLES G. ADAMS

Secretary Auburn Rose Society, Auburn, N. Y.

EDITOR'S NOTE.—What a change from the engineer's ideal of a treeless, pole-bordered straight streak between towns is Mr. Adams' conception of the rosified highway! If the idea is at all thoughtfully developed, it can more rapidly make the rose universal in America than any other one idea. If properly handled, it would mean easier and better roadside maintenance, free from the devastating scythe of the average road "supervisor," who has for generations been exterminating the lovely natural roadside flora in favor of the briars which are spared and the burdocks that are not injured by his stupid efforts! The right roses will possess the roadsides, to their enormous advantage.

The article on "Rose in Railroad Economics," printed on page 43 of the 1920 Annual, bears on this proposition.

AUTOMOBILES and improved roads have opened up the whole country to the people, which facts suggest opportunities for certain improvements that were impracticable before the advent of the present tremendous highway traffic.

After a delightful late summer trip through the "Finger Lake Region" in the heart of New York, from my home city of Auburn, to the beautiful rose-test gardens at Cornell University, in Ithaca,—about 40 miles distant over state highways—I had a vision of what a wonderful transformation would come about if the state highways could be bordered with suitable roses. One who has traveled in Florida on highways through acres of orange groves, laid out in squares, the nearly white sandy soil contrasting with the dark green foliage of the orange tree, loaded down with rich, golden yellow fruit, receives an impression never to be forgotten; yet this could not compare with the great beauty, fragrance, and attractiveness that we could attain in the northern states in the month of June, amid the wealth of scenery in fields and forests, jeweled lakes, sparkling rivers, and mountains with their winding roads, if those roads were bordered with suitable roses.

The first inquiry is, Is it possible? Yes; it is possible.

First, we have the climate, soil, and natural environment in beautiful and appropriate surroundings. We now have hardy roses, variously adapted to such an effort. Then we have an organization in the American Rose Society which might propose the whole plan of operation.

Will we rise to this opportunity? The answer, I believe, is in the affirmative! Everything big is accomplished in units. "Every little bit makes a little bit more."

How can this fine object be accomplished? Here is my prescription! First, organize a rose society in your own community, becoming at once identified with the American Rose Society, so that its official force is at your service. Get the members to planning a rose show for the June-time of 1921, and have such a show, free to the public, and in an easily reached place, even if you have but a dozen exhibits. At the show, talk about the climbers on exhibition as the sorts that would make lovely a certain section of a nearby highway.

Of course, your members, through affiliation, would have the American Rose Annual, which I regard as absolutely essential to every rose-grower, and which is sure to keep ahead of the crowd on this road rosification movement.

Get every grange, chamber of commerce (the Auburn Chamber of Commerce has already endorsed the plan), Rotary club, Kiwanis club, and civic society (such as the active Finger Lake Association of Central New York, which have already taken favorable action), to do just a little each year. An appropriation of even \$10 yearly from each organization, when expended judiciously by a competent committee that will work without cost, or under the supervision of the local rose society, will soon begin to transform the highways treated.

Individual property owners along the highways will soon coöperate, especially after a ride through an improved section. Begin by selecting an attractive section of a state road, and plant hardy roses, particularly climbing roses, and at first on the sloping banks of a "cut." Never plant near dangerous crossings where they will attract the attention of traffic from railroads or sharp turns. Keep well in the sunlight.

Use care in planting; don't set the roses in isolated spots where they will be left to die, but put them in a friendly environment where rose-lovers will promise to give them a little attention each spring, keeping the heavy weeds and grass away.

The Auburn Rose Society has the honor of having the first organization to put this plan in practical operation, having already had set, in the fall of 1920, a quantity of suitable plants

under the supervision of a competent committee. In a certain Pennsylvania city a rather remote parkway has a slope on its north side planted with Crimson Ramblers, set out ten years ago. Hundreds of motorists make the out-of-the-way trip every June to see these roses in bloom. The people will come, and will enjoy, and will pay and help, in any community.

Ask the newspapers to help; they will gladly print the story of such an effort for the good of all. Make a start this spring.

President Pyle, of the American Rose Society, has brought to my attention the following clipping from the *Philadelphia Bulletin*, which fits the situation:

One of the main roads running out of the city of Los Angeles is lined on either side, for a distance of more than twenty miles, with rose bushes, over eight thousand settings being required. The average road-building engineer would call that a luxury—possibly a folly. A few years ago an appropriation was made on one of the eastern railroads for the planting of rambling roses along embankments and cuts beside the right of way on its main line for a distance of many miles, and “practical” railroad men called it foolishness, although patrons of the road found in the beauty of the flowers something to take their minds off other incidentals of their journey that were more “practical” but nevertheless neglected.

Beauty and utility often merge. Ordinarily they can be made to coöperate. It isn't necessary that a railroad route should be a road-bed and nothing more, and that nature's deficiency in scenic attraction should be aggravated by eye-sores of negligence or design. Nor is there good reason why beauty and the eye for it should not be served “on the side,” in road-building, at least to the extent of providing the “setting” of shady, green.

President S. E. Hillger, of the Auburn Rose Society, suggests the following native or species roses, in addition to the hardy climbers, of which most are suitable. The Editor tells me that Mrs. M. H. Walsh is a better trailer for slopes and banks than *Rosa Wichuraiana*, and that the wonderful railroad-slope plantings along the Pennsylvania and the New Haven roads are largely of Dorothy Perkins and similar roses, such as Excelsa, and others that form long shoots rather than heavy canes. Experiment in sorts; a try-out is the way to get the right sorts for your particular locality. Here are good shrub roses:

Rosa spinosissima altaica; Hybrid Noisette, Mme. Plantier; *R. rubiginosa* (Sweetbriar); *R. carolina* (humilis); *R. virginiana* (lucida); *R. multiflora cathayensis* (a fine trailer); *R. setigera* (our eastern wild rose); *R. blanda*; *R. nitida*; *R. cinnamomea*; *R. rubrifolia*; *R. rugosa* (both red and white).

Rose Stocks and Root Systems

By H. HAROLD HUME, Glen St. Mary, Fla.

EDITOR'S NOTE.—In this article Prof. Hume has opened up a subject of the utmost importance to American rose-life. We have been taking our rose fashions and our rose stocks almost wholly from Europe, and even under the confusion and inequities of Quarantine 37 there were imported into the United States for the fiscal year ended June 30, 1920, some 3,514,636 rose stocks for American use, without any actual study or investigation as to their peculiar adaptability to the climate or the conditions of their use. (See "Rose Notes" for details.)

The setting forth of the problem in the pages that follow, and the qualifying illustrations on Plates VII and VIII, ought to put the problem at least in shape for study.

It is the earnest desire of the American Rose Society to foster the study and the testing suggested by Prof. Hume. Many thoughtful growers are interested both for the rose advantage that might result and for the great commercial relationship possible in the production here of the millions of unconsidered stocks now being imported. At present prices, these imported stocks have a value of more than a quarter of a million dollars.

The Editor seeks correspondence on the subject of rose stocks. It is already possible to obtain certain very interesting trial stocks.

THE question as to whether roses on their own roots or grafted upon some rose stock are best, is often discussed, and the end of this discussion has not yet been reached. Possibly it never will be. In such a matter, it is unwise to take the position that there is only one side to it.

When talking or writing about rose-growing in America, we sometimes forget that the area available covers the continent, that our soils and climate vary greatly, and that in consequence practices, varieties, and roots which give abundant satisfaction in one place may not be at all satisfactory in another. The problems confronting the rose-grower, whether amateur or professional, may be, and indeed are, quite unlike in different sections of the country. They are just as varied as are the local conditions.

But, looking at rose-growing in a broad way, and from the standpoint of one so located that budded or grafted roses must be used or roses not grown at all, there can be little question but that a given number of roses worked (i. e. budded or grafted) on a well-adapted vigorous stock will give more uniform satisfaction over wide areas than if the same number be grown on their own roots. Select at random, if you will, twenty-five

Tea and Hybrid Tea roses on their own roots, and you will probably have twenty-five different root types or systems or developments—whatever you like to call them.

It is the common aim of everyone interested in roses to make their culture surer, easier, and simpler. Certainly if roses are to be produced under widely different soil conditions (to mention only one factor)—poor soil, rich soil, wet soil, dry soil, compact soil, open soil, or what not—and we can find stocks on which they may be grown satisfactorily and which at the same time adapt themselves to these different soil conditions, the whole problem is greatly simplified. If our root system is adapted to many different kinds of soil (with “kinds” used in its widest sense), then we have reduced those soils to a common basis by the simple expedient of growing roses on that root system.

But some may say, “Why, you can make the soil any way you want to!” Well, maybe you can and maybe you can’t; it depends much upon who you are and where you live. You may be many miles from clay, and a lean pocketbook may keep you still farther removed from many of the materials entering into rose-bed recipes. If a rose stock is adapted to a large number of different rose varieties, which, if grown on their own roots, must of necessity have many different kinds of root systems, then we have made all these roses uniform in a very vital part of their makeup by the process of putting them on a common root system. A properly adjusted stock certainly makes for uniformity, both in its relation to the soil and to the top worked upon it.

Grant that the root system of a rose is half the plant (it is not less); then one-half of all the roses grown in America, whether in nursery, park, or garden, are underground. Our effort in development has been directed largely to the upper half of the rose, to its vigor of growth, to its habit, to the blooms it bears, to the insects and fungi that attack it, and we have not given to the lower half of the rose the attention it merits. But if we are to succeed with that fullness of success which so many of us devoutly desire, then to this underground half of the rose, none the less important because out of sight, we must give a much larger share of attention. A complete and painstaking survey of the whole problem in different parts of the country is

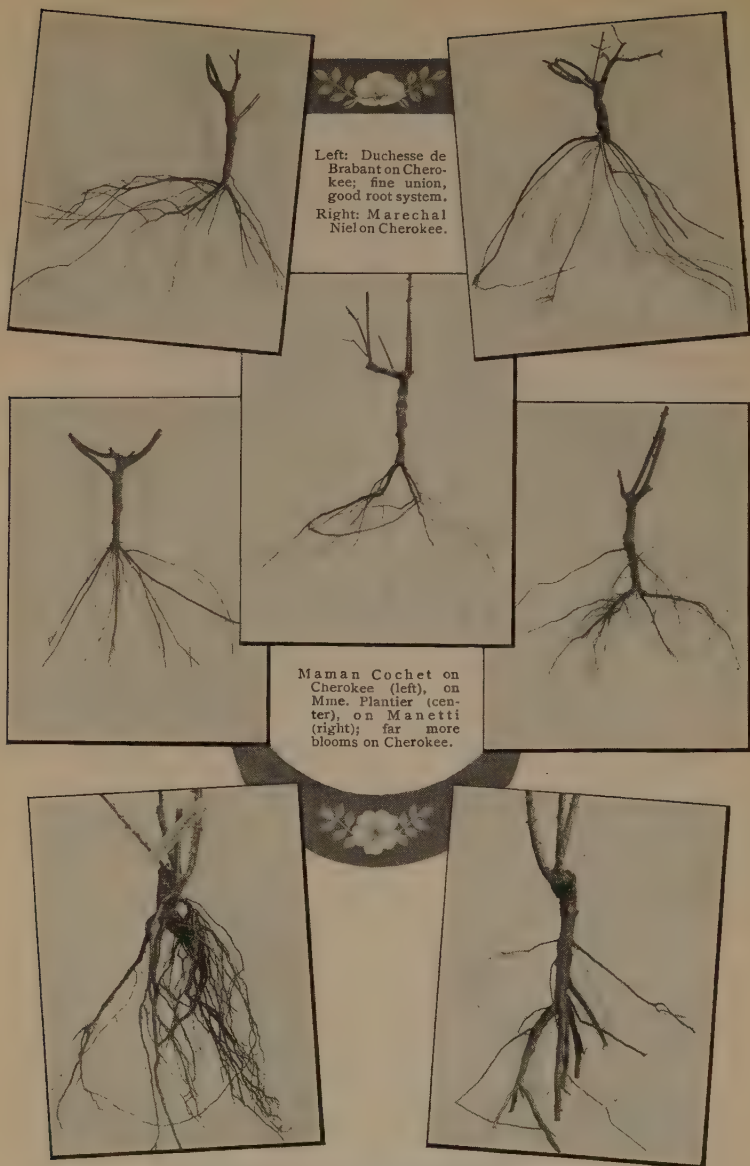
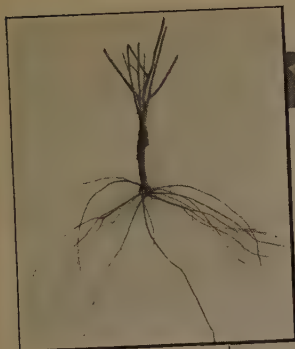


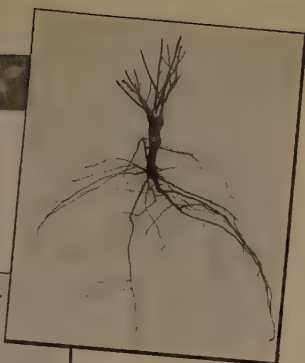
PLATE VII. To illustrate "ROSE STOCKS AND ROOT SYSTEMS," page 47



Left: Manetti, 3-yr. cutting; root area, 25 sq. ft.

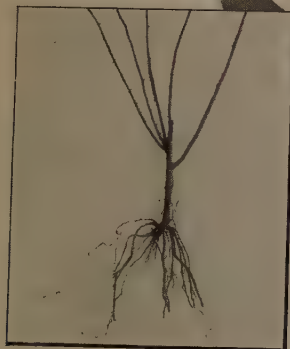
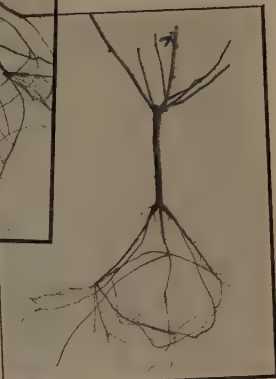
Right: Cherokee, 2-yr. cutting; root area, 100 sq. ft.

Below: Mme. Plantier, 3-yr. cutting; foot area, 30 sq. ft.



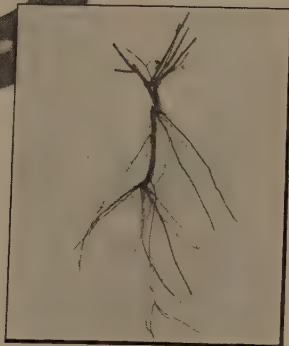
Left: Frau K. Druschki, own root—as good as Manetti or Mme. Plantier.

Right: Empress of China, own root—has possibilities as a stock:



Left: Rugosa cutting

Right: Louis Philippe 1-yr. own root; good root system



very much needed, and necessary to a wide forward movement in open-ground rose-culture.

How may we gauge the merits of a rose stock? By the requirements which it has to meet and the way it meets them? Among the points involved, the following are important:

1. It should be easily secured or propagated from seeds or cuttings.

2. It should be easily worked, i. e., budded or grafted.

3. It should be vigorous and long-lived.

4. It should be adapted to a wide range of soil conditions.

5. It should be able to grow prosperously in widely different climates.

6. It should be adapted to a large number of strains and varieties of roses.

7. It should be disease-resistant.

8. It should not sprout readily from the root or from parts of the stem below the bud or graft union.

Some discussion of these several requirements will not be out of place, for we must have a clear conception of what we want before we can secure it or know that we have it if already in hand. (It may seem strange that frequently we do not recognize the value of materials in plant work which are already in hand, as we shall presently see.)

1. There is, of course, no use in writing about growing within our own borders the quantities of roses needed in America on some stock which is difficult to propagate or which cannot be secured readily. It is a well-known fact that rose seeds of many kinds do not germinate quickly or uniformly, and it is equally well known that many sorts are difficult to root from cuttings. If the stock proposed will root easily from cuttings, the problem is simplified, because in many parts of the country the cuttings may be planted out in the field, grown for a year, and then grafted. The use of specially prepared beds, or of bottom heat, would militate against the use of any variety requiring such treatment. Some sorts may make very fine stocks in a small way, but we are approaching the problem from the standpoint of a rose for every American yard, a dozen for every garden. Given good soil preparation and equally favorable conditions, the stock which, for instance, would give a 90 per cent stand from cut-

tings would be decidedly more valuable in this particular than one from which only 50 per cent of living plants could be secured.

2. Those who have propagated roses in a large way, know that not all varieties are equally easy to grow and it is also true that all stocks are not equally easy to bud or graft upon. Side by side, under the same conditions, one stock may give 50 per cent of living grafts while another will give 75 to 90 per cent. The same is equally true of budding. Some roses of possible value as stocks have very thin, brittle bark; they are consequently difficult to bud and graft, and must take second place to those more easily handled. This point and the previous one may not at first glance appeal to the ordinary rose planter, yet they both have an important bearing on quantity rose production, and upon the price which must be paid for first-class bushes.

3. Lacking vigor, a stock is worthless, and vigor and long life are very closely inter-related. Vigor means that it has the ability to overcome unfavorable conditions, to grow in spite of them. Vigor of growth is dependent upon good, deep, widespread root development with plenty of foraging power, and dependent upon foliage that can do its share, with the root, in making a plant. If a rose stock under consideration is a weak grower, away with it! It must be able to take care of vigorous growing tops worked upon it; it must also be able to put life and vigor into the weak sorts entrusted to its care.

4. A rose stock should not be particular in its soil requirements. Of course we can, in a large measure, make the soil what we will, and the rose-lover will go to any extreme to do so, but how much simpler it would be to do away with all that, plant the rose in any reasonable soil, and forget about any special preparations. Impossible? Be not so sure of that, at least in some parts of the country! Neither be sure of its impossibility in all parts of the country if we knew more about rose stocks.

With some kinds of roses, "always in growth is always in bloom" is true, and such a condition is quite possible in some parts of our country. The right stock will help greatly in keeping up growth and bloom.

So far as known we have no alkali-resistant rose stock. The finding of such a stock would be worth while.

5. Glance at the rose-zone map published in the 1920 Rose Annual. It is very instructive. While it deals with varieties it has equal force as applied to stocks. The problem would be greatly simplified from the standpoint of the rose propagator if one stock would do equally well in all sections. But this is hardly to be expected, and it may be necessary to work out stocks for each rose zone, although the adaptability of roses to different climates is remarkable. In passing, it may be pointed out that there is no basic difference in hardiness in a variety grown on the same stock, regardless of where it may be grown. A Frau Karl Druschki rose on Manetti stock is not different in hardiness whether it be grown in California, New Jersey, Ohio, or Florida. (There is probably not much to be gained by using a stock more hardy, i. e., more dormant or less affected by heat impact, than the top worked upon it, but the stock should at least be as hardy as the top.)

6. If Hybrid Perpetuals had to be grown on one stock, Hybrid Teas on another, Teas on another, Noisettes on another, Polyanthas on still another, and so on, a very complicated situation would be created for the large grower of grafted roses. A rose stock adapted to many kinds of roses has decided advantages.

7. In growing thrifty rose stocks, disease-resistance is important. Freedom from rose spot and other fungous diseases is a very desirable item. Again, in the lower South, where on lighter soils root nematodes are very common, a rose stock very susceptible to their attacks is worthless. This is not a local problem by any means; it almost covers whole states, and affects large parts of many states.

8. The stock should not sprout readily from any part. One of the objections to grafted roses (and one over-emphasized at that!) has been that they sprout from below the union. Some stocks are more prone to do this than others. With some stocks it scarcely ever happens. Of course, the cuttings from which stocks are grown may be disbudded, but such work is no small item of trouble and expense in handling large quantities of cuttings.

To what has gone before may be added a few remarks on the peculiarities of a few rose stocks and possible rose stocks.

Perhaps the most commonly used and most widely tried

out rose stock in America at this time is Manetti (*Rosa chinensis*). It has a wide range of adaptability, both as pertaining to soil and to climate. It is used extensively as a rose stock in California, Ohio, Florida, and in the East. It is largely used for growing roses under glass. Cuttings root readily, producing a moderate rather shallow root system, and the roots are pliable—an advantage in packing. Manetti sprouts badly from below the union unless disbudded.

Mme. Plantier (a form of *Rosa chinensis*) is not commonly used, but at least one nursery firm has grown many thousands of roses on this stock for years. It is more difficult to root under open ground conditions than Manetti but produces a better root system than that variety. Its crooked growth makes it more difficult to graft, and it does not lend itself readily to budding because of this same feature. But fine roses can be and are grown upon it. The roots are quite brittle, and more easily broken in packing and handling than are those of Manetti. In vigor of growth imparted to the top it has some advantage over Manetti.

The Cherokee rose has often been mentioned as a rose stock, but no one who has tried it out extensively has said much about it. The writer has tried one form of it, commonly known as Double or Evergreen Cherokee, rather extensively. It is, perhaps, a cross between Banksia and Cherokee. Noisette, Tea, and Hybrid Tea roses have been worked on it with splendid results. Roses grown on it outgrow and outbloom those on Manetti and Mme. Plantier. For light, sandy soils this form of Cherokee or the common White Cherokee (tried out less extensively) have no superiors. In the lower South a rose-bed, without any particular soil preparation, planted with bushes on Cherokee stock, will do much better than one in which the soil was made with the utmost care and without regard to expense and planted with bushes on Manetti stock, for instance.

There may be other stocks that will do as well, but up to this time, so far as known, it has no equal. The roots go deep and far. The three-year Manetti and the three-year Mme. Plantier illustrated (see Plate VIII) had root systems extending over an area of twenty-five square feet, the Mme. Plantier having a little

the advantage. Both of these were transplanted when one year old. The two-year Cherokee illustrated had roots covering a hundred square feet of soil! It had not been transplanted. Is it any wonder that roses like Mme. Lambard, Radiance, Marie Van Houtte grow as high as your head with trunks an inch or more in diameter in a single season from the graft? As for bloom, they never stop except when the weather gets cold enough to check their growth.

The Double Cherokee is difficult to root, and on account of its thin bark, difficult to graft. The common White Cherokee is more easily handled in these particulars; in fact, there is little left to be desired. It is next to impossible to work other varieties on it by budding; it must be grafted. The thorny branches are formidable—the worst drawback in propagation—but that can be taken care of. It does not sprout readily, and for the Tea and Noisette rose area there is a strong probability that no better stock will ever be found. Yet for years this rose stock (*R. lævigata*) has gone unnoticed and untested. It is in no wise particular as to soil or moisture; it is not subject to disease. It has much to commend it. (The Cherokee, by the way, though “wild” in many southern states, is not a native. It came originally from China, Formosa and Japan.)

The Macartney rose (*R. bracteata*) does not look inviting as a stock. It has the serious drawback of rooting readily from the stems and throwing up many shoots from roots and underground parts. It often becomes a veritable pest. Its thorns are quite as formidable as are those of the Cherokee.

Rosa multiflora looks good. Some of the finest roses ever grown in the South were grafted on Crimson Rambler. The Japanese Multiflora seedling roots (see Plate VII) are abundantly supplied with fibrous roots of good depth. It certainly looks worth while, but we have not yet tested it here.

Rosa rugosa is useful for certain lines of rose propagation, particularly for the growing of standards. It roots readily from cuttings, producing roots all along the cutting from the surface of the ground downward. (See Plate VIII.) Its hardiness is beyond question. The serious drawback to its use as a rose stock is its disposition to throw up many sprouts or suckers.

There are a number of other rose stocks in use. At least

three are known, but what they are is not known, as they have not been critically studied.

Quite a number of roses not heretofore considered as possible rose stocks are worth trying out. Empress of China, for instance, looks as though it might be satisfactory. Fortune's Yellow is also a possibility. Banksia is not likely to be worth while. Its bark is too thin, and it does not root readily in open ground.

In this article, the main object in view has been to call attention to the importance of rose stocks in the production of American roses, and at the same time to emphasize how little we really know about the question. In the foregoing paragraphs, attention has been called to a number of stocks. But who in America today can speak with any authority concerning their behavior in different parts of the country? Who knows their limitations as related to the varieties which may be grown upon them? No one! No one can take the eight merit tests given above and intelligently criticize the stocks now in use. No one has yet undertaken to determine in a large and general way the merits of many untried but perhaps worthy possibilities. It is perhaps too difficult a problem for private solution.

What we need is a comprehensive and exhaustive test of rose stocks in different parts of the country. It will not do to say that every question can be answered, but if a rose-grower in each of several states covering general rose-growing conditions will agree to grow and test a half dozen or more available stocks for soil, climate, and variety adaptations, and if this information can then be brought together and studied in a critical way, we can in a few seasons answer with some authority the question: "What is the best rose stock to use in my part of the United States?" The American Rose Society can undertake no more worthy piece of work than this.

Again, if there are not satisfactory rose stocks for certain conditions, there is no question but that they can be produced just as surely as we can produce new varieties of roses to meet certain requirements. It is a worth-while field for the rose breeder. No one knows better than the writer how hard it is to change fashions in plants, but new rose stocks must displace some of the old rose stocks if we are to meet with real success.

Other Possible Rose Stocks

By THE EDITOR

CORRESPONDENCE concerning rose stocks has been widespread for several years, and despite the admission of European grown stocks without question under Quarantine 37, the disposition to produce in America suitable rose stocks for America seems dominant. For example, Mr. S. W. Crowall, of the extensive United States Nurseries at Roseacres, Miss., writes as follows under date of Feb. 9, 1921:

Possibly it may be of interest to you to know that Mr. James Brodie, Biloxi, Miss., has used Baltimore Belle for a rose stock for many years, and, no doubt, he can give you some interesting data covering the use of rose stocks for his section. Some years ago I purchased several hundred Marechal Niel roses from him, worked on Baltimore Belle, and after the season had closed we had possibly ten plants unsold. These were planted out at points to grow on for cuttings during summer, and I was amazed at the growth the plants made. Since that time Mr. Brodie has been growing our Marechal Niels simply because he was producing a better plant than we could possibly grow. All of the Noisettes seem to take kindly to the Baltimore Belle stock, and other types apparently find this also a congenial stock.

That California growers are very much alive on the stock proposition is evidenced by the subjoined extract from a letter dated March 23, 1920, and written by Mr. George C. Roeding, of the California Nursery Co., Niles, Calif.:

This company has planted this year something over 2,000,000 rose-cuttings at its plant at Niles, Calif. The variety which predominated in this planting is the Manetti. In addition to this we have also planted a new *Rosa canina*, which is particularly strong growing and makes fine long canes. It is a variety which I secured when I was in Europe, in 1912, from Victor Teschendorff, Dresden, Germany. In addition to this, we are growing Gloire des Rosomanes and De la Grifferaie and a limited quantity of the Veilchenblau, which I have about concluded is going to be a very desirable variety for standards because of its strong canes. If we succeed in getting a good stand of cuttings, we expect to bud at least three-quarter million roses this year. In addition to this, we will have a large quantity of Manetti to sell, because we are planting several hundred thousand cuttings rather close together with a view of having stocks to offer to the trade.

In the 1919 Annual, on page 40, Mr. Peter Bisset described a climbing or pillar rose collected by the late Frank N. Meyer in a garden at Paoting Fu, Chili Province, China and later identified by Alfred Rehder, of the Arnold Arboretum, as a form of *R. odorata*. It is known by the number 22,449, and has been suggested as a rose stock because of its peculiarly easy rooting

quality and because of the facility with which it may be budded or grafted. This *R. odorata* 22,449 has been in the Editor's garden for several years, but has not flowered, because the wood has been freely sent out for trial, and also because the hard winter of 1919-20 killed it back to the ground, but not injuring the roots. Its extraordinary ease of propagation and its real vigor commend it for further and more orderly study. An illustration of one propagating procedure was published in connection with Mr. Bisset's article.

Writing recently concerning this 22,449 rose, Dr. Van Fleet called attention to its disinclination to become dormant, which would indicate its possible value for greenhouse use, as a stock for winter-flowering roses.

Another stock possibility is suggested in a recent number of *Plant Immigrants* (No. 164), issued by the Foreign Seed and Plant Introduction Office of the Bureau of Plant Industry, Department of Agriculture, in the following description of *R. coriifolia*.

"*Rosa coriifolia* (Rosaceæ), 48,086. Rose. From Bell, Md. Presented by Dr. W. Van Fleet. Var. Frobeli. A promising rose for budding or grafting stock. This rose has been introduced through several sources under the name of *Rosa laxa*. It was grown at the Arnold Arboretum under *R. laxa* for several years. *R. coriifolia* is related to the common dog-rose, *R. canina*. It is a stronger grower, with upright and nearly smooth stems. The flowers are white, the fruit globose and red. The vigor and hardiness, together with its upright and nearly smooth stems and lack of suckers, make it a promising plant for a stock. It seeds readily and prolifically and the seedlings come very true. Fruiting plants are to be found at the Arnold Arboretum, Boston, Mass., and in the collections of Dr. W. Van Fleet, Bell Station, Md. The rose appears to be perfectly hardy and very resistant to the attacks of mildew." (Galloway.)

Correspondence with Dr. B. T. Galloway, of the Bureau of Plant Industry, indicates the intention of the Bureau to investigate the rose-stock situation to the extent of the means available. Various interesting suggestions have been made, and it seems quite likely that the next several years will witness much activity in this direction.

Let us keep right on with the study and trial of stocks; it is well worth while, and it is a study which the amateur can undertake without much trouble.

In "Rose Notes," on a later page, will be found the official details concerning the continuing importation of rose stocks from Europe.



PLATE IX. A Portland (Oregon) Rose-Garden in 1920. (Courtesy of Mr. Jesse A. Currey.)

Some California Rose Conditions

By CAPT. GEORGE C. THOMAS, JR., Beverly Hills, Calif.

EDITOR'S NOTE.—Captain Thomas' enthusiasm for rose-growing and rose-breeding has led him to remove all his roses from the lovely eastern garden where they were under observation to the California location (near Los Angeles) which he believes affords the best rose climate in America. Members who have noted his work in breeding toward the hardy everblooming climber—as fully illustrated and excellently described in the 1920 Annual—will be glad to know that the Captain will continue his fine work in that direction.

This view of the rose conditions of California is the more important because it is that of a very highly skilled rose-grower who is also a world observer. It is nevertheless the easterner's point of view.

THERE are so many different climates in California that a careful study of the resulting rose conditions and an accurate test record in the varied locations would be necessary before a really comprehensive guide could be tabulated. Such a reference would show many new and distinctive methods of cultivation as well as diversified classes for each section.

Very broadly speaking, there are three main regions in the state, each with its separate climate, which may be described as the Coastal, Mountain and Desert areas. As in the eastern belts suitable for different types of roses, these divisions overlap and merge. Definite lines are not decided mostly by latitude, as in the East, but ocean influence, altitude, and shelter from adverse extremes are the main factors, tempered materially by local conditions. Such local circumstances cause considerable variation in one or more of these deciding factors, with consequent marked differences of rose conditions in places geographically close together.

The Mountain and Desert areas are only suitable for certain classes of roses, with necessary special selection and care. The extreme northern coast section has an abundant and protracted rainy season, and although splendid results may be obtained with roses during the balance of the year, this part of the Coastal area would not seem to be ideal as an all-the-year proposition.

Farther south in the Coastal region the conditions for rose-culture become more and more satisfactory; rainfall and too much dampness decrease; sunshine increases, tempered, nevertheless, from an adverse extreme by the "high ocean fog" of

which so much has been written. A remarkable rose climate is the result where it is possible for the rose-lover to grow and harvest the "Queen of Flowers" during the entire year. In this favored section not only is it possible and easy to produce outdoor roses the year round, but it is also practicable to grow all the different classes and types.

Hybrid Perpetuals thrive in this cool, equable situation. For example, in November, Druschki still blooms prolifically, plants noted giving an average of twenty blooms and buds. Other varieties of this class improve their blooming season in proportion.

Teas must have a mild winter, and the immunity from killing frost which obtains insures great size in growth and remarkable quantity, quality, and continuity of bloom. Maman Cochet is a great favorite; bushes eight feet high are not uncommon, while its floriferousness is continual.

Hybrid Teas do not improve to as great an extent as the examples just described. They give continued bloom throughout the winter, but in growth and size of flower are not larger than in the East during the height of its season. While all varieties give satisfaction, Laurent Carle is most noticeable in its perfection, a plant being counted with fifteen flowers and opening buds the last of November.

It would seem that in Hybrid Teas the improvement is most unusual in the weaker varieties. Such collector's roses as Marquise de Sinety, Queen Mary, Jean Note, and especially Lady Hillingdon should be specified. Pernetianas are quite satisfactory; they also give results during the winter as well as in the summer, in addition to which their weaker members, such as Constance and Viscountess Enfield, improve considerably.

The roses bred by Howard & Smith, of Los Angeles, do remarkably well. Los Angeles, a cross between Mme. Segond-Weber and Lyon, is a glory.

It is in climbers that the most wonderful results govern. Cherokees flourish as hedges, giving an occasional scattering bit of color after their main season; Climbing Teas, Noisettes, and Hybrid Tea climbers are rampant in growth and generous in gifts.

Polyanthas are topped by the universal favorite, Climbing

Cecile Brunner. This rose is always in bloom. Thirty feet is no record for its growth and when cut back as a hedge rose it gives an unbroken quantity of color throughout the entire year, plants being noted six feet high and the same in diameter, with an average of a hundred blooms and colored buds per plant in December.

Wichuraianas do not deserve much comment: they are as good here as elsewhere, but one does not cultivate them when such roses as the Brunners (pink and yellow), Marechal Niel, Gloire de Dijon, Climbing Cochet, Reve d'Or, and many others of great beauty and continuous blooming season are possible. Unless a variety has unusual coloring, such as Chromatella, it is a waste of time to have types with only one period of beauty.

Certain changes in cultivation are made imperative by the year-round growing season. Perhaps the most important is the enforced dormancy brought about by the stoppage of artificial watering—for there is practically no rain for six months, and all plant-life must be fed by irrigation to secure growth and production. Climbers do not often receive or need as much care in these respects as do the dwarfer types. The latter eventually become enervated by continued growth and production without rest. It is easy to select the time desired for this rest period during the dry season, and by withholding water from different beds and plants as required, at least two-thirds of the roses will be working all the time. Pruning is resorted to with these smaller classes, and then water and fertilization is given.

It is difficult for a newcomer to this district to realize that roses are regarded only as incidental. They are easy to grow well, and varieties long ago superseded elsewhere do so well here that few of the newer introductions are generally cultivated. There are so many tropical and semi-tropical fruits, flowers, climbing plants, and flowering trees yielding their harvests throughout the seasons that the rose is only one of many favorites.

Stocks for budding are considered necessary by some resident authorities, especially with weaker varieties, and the old rose, Gloire des Rosomanes, has given excellent results as a stock. This rose is an example of the value of a discarded favorite under the conditions noted, for Gloire des Rosomanes, commonly known as "Ragged Robin," is used very extensively as a hedge

rose, and it is well suited for this purpose, with its extreme hardiness and everblooming character.

I do not pretend to have acquired more than an elementary knowledge of rose conditions here in California; but this brief sketch will serve at least to show what a very wonderful opportunity is offered to rose-growers. It was the recital to friends at home in the East of some of these rose facts, and their surprise and very natural skepticism at the story, which caused the belief that the rose-growers of the American Rose Society might like to have my impressions.

An Amateur's Rose-Garden on Puget Sound

By JAMES A. HAYS, President Tacoma Rose Society

EDITOR'S NOTE.—Marechal Niel blooming in the open in the northwestern corner of the continental United States! Roses in April and May! We have long heard of the great rose occasions of these favored Pacific Coast cities, but this is the first intimate home-yard story of how a business man and his folks have "rest for the weary and constant delight in a plot of roses." Mr. Hays is the energetic executive of a very live and active rose society. It is to the liberality of the Tacoma Rose Society that the readers of this Annual owe the beautiful Frontispiece showing an average Tacoma rose-garden.

WHETHER the legendary pruning of his father's cherry tree by the little George Washington had anything to do with the selection of February 22 as our annual pruning day, is not certain at this late date. Our garden is not a large one, and therefore each plant is to us an individual; we know what we want from each bush, whether show blooms or quantities of blossoms, and prune accordingly. Large branches that the wind might whip and so injure the whole bush are removed in the fall, but this Washington's Birthday event is the final trimming. When we have finished, the garden doesn't look much like a professional gardener's job—every bush the same height—but it is *our* garden, and we know it is in the shape that it will give us and our friends the most pleasure.

Although we are so far north, we are not likely to have heavy frosts after February, and the United States Department of Agriculture gives the planting date for all gardens in this region

as March 21. Roses, however, can be planted all winter, for the ground is seldom frozen. The roses require no covering or any other preparation for winter; only once in the fifteen years of our garden's existence have the bushes been seriously injured by a freeze, and that came early, while the sap was still up. Frequently, for eighteen or twenty months in succession, and once for thirty-three months in succession, we were able to find roses in bloom every month; not many, nor as wonderful as they are in June, but still roses.

In spite of the shading in the Rose Map for only Hybrid Teas, we have proved that every variety will grow here except the Cherokee. Not all do equally well. Marechal Niel needs a protected corner and some coddling, but there are some old and handsome plants hereabout. We do not have heat enough for the American Beauty to reach perfection, but Ulrich Brunner grows gloriously and compensates for that loss.

After the roses are pruned and the beds weeded, spaded, and fertilized, we begin to watch for the first blossom. It is apt to surprise us after all our watching, but we usually find it on some of the climbers with which the front of the house is covered, sometimes as early as March 26, but more often early in April. In ordinary seasons, by June 1 the garden is at its loveliest.

Our garden is like the majority of rose-gardens in the Puget Sound cities. We have an ordinary-sized building lot, and the beds are on all sides of the house. In the front yard and in the parking strip in the street, where the house shelters it from the north wind and there is a southern exposure, we have our choicest varieties. "What! Choice roses on your parking! Aren't all the blossoms stolen?" Strange as it may seem, the blossoms seldom and the bushes never disappear. Indeed, most of the bushes are so large that anyone would have difficulty in carrying them off. Who would care to struggle with a six-, eight-, or ten-foot high Testout; and even the Teas are too big to carry and conceal. The biggest bush in the yard is a Conrad Ferdinand Meyer, which sends its twenty-foot barbed shoots all over the back porch, but it is almost equaled in size on the opposite side of the house by a Climbing Cecile Brunner with its delicate blossoms and lovely foliage. The growth of both can be characterized by a single word: it is simply riotous!

The dates of the first blossom during 1910 and 1920, of about fifty of our one hundred and twenty-five varieties, and the average number of blossoms per plant to July 1, when the first blooming is over, and then for the rest of the season, is shown in the following tables. The bushes are almost all from four to eight years old.

NAME	First Bloom	No. of blossoms to July 1	No. of blossoms July 1-Oct. 1	NAME	First Bloom	No. of blossoms to July 1	No. of blossoms July 1-Oct. 1
Reve d'Or	April 23			Entente Cordiale (Ducher)	May 30	40	*20
Gainsborough, Mme. Alfred Carriere, Cl. Mme. Caroline Testout	May 1			Mme. Melanie Soupert	May 31	51	*30
Irish Elegance	May 10	100	*400	Mme. Caroline Testout	May 31	100	*300
Mme. Edouard Herriot	May 11	11	30	Mrs. Aaron Ward	June 1	71	*80
Lady Battersea	May 12	32	25	Mrs. F. W. Vanderbilt	June 1	35	41
Laurent Carle	May 12	85	*45	Ulrich Brunner	June 1	40	*30
Old Gold	May 13	36	*45	Mrs. A. R. Waddell	June 2	56	34
Cheerful	May 14	18	200	Los Angeles	June 2	10	5
La France	May 15	60	*120	Ethel Malcolm	June 3	29	*26
Muriel Dickson	May 15	9	7	Mme. Ravary	June 4	57	*70
Cl. Mrs. W. J. Grant (Cl. Belle Siebrecht)	May 15	121	40	Le Progres	June 4	42	65
Irish Beauty	May 19	105	*300	Lyon	June 4	10	12
Irish Fireflame	May 19	57	*115	Mrs. Gordon Sloane	June 5	60	93
Augustine Guinoisseau (White La France)	May 21	15	20	Louise Catherine Breslau	June 5	20	25
Mrs. Wakefield Christie-Miller	May 21	42	*68	Constance	June 5	9	7
Lady Pirrie	May 23	81	*63	Harry Kirk	June 5	67	*60
Gustave Regis	May 24	153	*210	Lady Plymouth	June 5	16	35
Lady Hillingdon	May 26	73	*85	Ophelia	June 6	12	*15
Senateur Mascaraud	May 27	35	*62	Souv. de Gustave Prat	June 8	15	10
Lady Dunleath	May 27	10	5	George C. Waud	June 10	10	15
Colleen	May 27	15	7	William R. Smith	June 10	11	17
Grace Molyneaux	May 27	85	*50	Tipperary	June 10	6	15
Edith Part	May 27	78	*70	Gorgeous	June 10	7	12
Ophelia	May 28	10	15	Lady Greenall	June 10	5	9
Mrs. Maud Dawson	May 28	7	60	Margaret Dickson Ham-mill	June 11	7	8
				Duchess of Wellington	June 11	7	10
				Aladdin	June 15	8	7
				Mrs. Wemyss Quin	June 15	8	15

*Indicates buds showing color on these bushes January 1, 1921.

The reader will notice the absence of many red roses. We have specialized in yellows and coppers, leaving the reds to be successfully grown by our neighbors.

Tacoma has few large rose-gardens, but it does have thousands of small ones, and hardly a home but has at least a few bushes. In 1911, the Tacoma Rose Society was organized. In the early nineties there had been a few rose carnivals but no show was held until June, 1911, after this organization was formed. That year there were thousands of exhibits of Testouts,

Druschkis, "Jacks," and La Frances, and it was wonderful to see. The character of the show has gradually changed, and now the annual displays are largely quality shows, although there are still hundreds of exhibits of the old faithfuls. The last exhibition was held in the rose-arbors of Point Defiance Park, and with the rose-gardens in full bloom between them, it attracted thousands of visitors. The show was especially lovely at night, when it was all electrically illuminated.

The programs of all these shows have included a few blank pages with the heading "List of roses I want," and the notes made at the shows have done much toward improving the little gardens of the city, because people have learned that it is just as easy to raise good roses as poor ones.

Roses do grow easily here, but there is nevertheless work to be done in a garden. Some years we have to spray for aphids. At other times, the cold water from the garden hose is sufficient to finish our commonest enemy. We have leaf-hoppers. Some bushes *will* mildew. There are worms which only "hand-picking" will eradicate, but the time spent in fighting pests is compensated for by the perfection of the abundant blossoms.

If we were to make a rose-garden calendar it would be something like this. In February we prune; in March we prepare the beds by weeding, spading, and fertilizing; in April we begin to see the results of our labors; and in May and June their full fruition. In July the bushes are pruned slightly after their first blooming and fed, and they continue to reward us always until October and frequently until Thanksgiving and Christmas. All the winter months we read the rose catalogues and decide what we must try the next season. Thus we have, not once but often, completed a full year, wherefore we add our testimony to that of other garden-lovers, that there is rest for the weary and constant delight in a plot of roses, even if it is a very humble one.

Members of the American Rose Society are referred to the interesting announcement on page 116 of a rose pilgrimage to the Puget Sound Country in the bloom-time of 1922, with opportunity "on the side" for visits to several national parks.

Florida Rose-Growing as Seen by Northern Eyes

By GEORGE H. PETERSON, Fair Lawn, N. J.

EDITOR'S NOTE.—Spending his winters in Florida, mostly on the west coast, Mr. Peterson has unusual opportunity to see the roses of Florida from his own broad standpoint of experience and knowledge. He is a member of the Executive Committee of the American Rose Society.

THE first thing which forces itself upon a northern rose-grower is the absence, generally, of most of the modern varieties with which he is familiar at home. The development of the Hybrid Tea during the past fifteen to twenty years is not reflected in the roses one sees in Florida today. Of course, there are exceptions, but, generally speaking, Florida, in a rose sense, is living in a past generation. This, I admit, has its compensations for the visitor.

It is always a real joy to meet old-time friends one has not seen in many years, and so when the northern grower of roses comes here and sees again some of his old loves and favorites, it brings back to him the memory of happy rose days of the past.

A quarter century ago one of the roses nearest my heart, if not *the* one, was Duchesse de Brabant.* I have not grown it for fifteen years, nor is it often met with in northern gardens. Here, on the west coast of Florida, it is relatively what Mme. Caroline Testout is to the Pacific coast. Do not, however, gather from this that roses are grown in Florida with the profusion and success that is experienced in Oregon, or even California, for they decidedly are not. As a northern woman, the possessor here of several hundred rose plants, told me, the rose in Florida is prone to all the ills it experiences in the North, and "then some!"

To begin with, most of the soil in Florida is of a light, sandy nature—the very last we would choose in the North. As a result, the chief requirement is water, and always more water. Next to this, in point of necessity, is cow manure, and perhaps some muck or soil from the lowlands. With all of these present one

*This rose was re-introduced to favor last year through Mrs. Roosevelt's letter (printed on page 32 of the 1920 Annual), describing it as Col. Roosevelt's favorite Rose.

may grow good roses in Florida, and plenty of them, and have them blooming practically all the year. If, however, the owner goes north for the summer and leaves the roses to shift for themselves, crowded by the tremendous weed-growth of the rainy season (July and August), some, at least, of the plants will succumb.

If the plants can be cared for during the summer it will be best to stop cultivation, but to cut the weeds down occasionally so that the life of the rose bushes is not choked out. This method will give the plants a rest. Then, along in September or October, a general pruning may to advantage be resorted to. One may then have roses continuously from November to June, with March the month of greatest show.

New plantings may be made from November to March inclusive, with December the best month of all.

Florida's professional growers agree that own-root roses are of little value. They do not seem yet to know, or at least agree, as to which is the best root-stock here.* The consensus of opinion seems, however, to favor the Cherokee.

One of the largest commercial growers of roses in Florida has, in response to my inquiry, submitted the following list as comprising the best twelve bush roses:

White: Frau Karl Druschki, White Maman Cochet, Marie Van Houtte.

Pink: Radiance, Maman Cochet, Mme. Lambard.

Red: Red Radiance, Papa Gontier, Freiherr von Marschall.

Yellow and salmon: Safrano, Isabella Sprunt, Etoile de Lyon.

The same authority submits the following list of best six climbing roses: Devoniensis, Climbing Bridesmaid, Reine Marie Henriette, Climbing Perle des Jardins, Reve d'Or, Marechal Niel.

From the above lists it will be seen that, from a variety standpoint, progress here is slow. Radiance, one of our modern Hybrid Teas, does splendidly, and I am confident that others would be found equally satisfactory.

*See Prof. Hume's article on "Rose Stocks and Root Systems," page 47.—EDITOR.

The Roses of Mt. Desert Island, Maine

By ANNIE LORENZ, Hartford, Conn.

EDITOR'S NOTE.—Miss Lorenz tells us of the beautiful roses grown on an island off the coast of Maine which is well within the territory shown on the Rose-Zone Map as unfavorable for unprotected plants. It is a pleasure to know of the success attainable through care and protection.

MT. DESERT and roses! This is one of the first associations of ideas in the mind of anyone familiar with this marvelous island, where the roses actually resemble those enticingly portrayed in the catalogues. The unusual rose prosperity of the island is the result of its cool and moist climate combined with its well-defined growing season. This ends with a hard frost, usually the first week in October, thus giving the plants time to harden off properly before the winter.

The rose casualties of recent years about Hartford are caused by our over-long growing season, as the killing frost holds off until early November, so that the plants go into winter "soft."

On Mt. Desert the roses are put into winter quarters about the middle of November. The dwarf roses are pruned of about half as much as will be removed in the spring; a trench is dug between each two plants, in which they are laid spoon-fashion, and covered with earth. The climbers are all laid down on the ground and likewise covered with earth. During December, after the ground is thoroughly frozen, pine branches and straw are put over the plants. Unpacking does not take place until the middle of May; the climbers are loosened earlier. The flowering season is about three weeks later than at Elizabeth Park.

Most of the standard Hybrid Teas, Hybrid Perpetuals, and climbers were to be found on the island. The most astonishing rose there is George Dickson, bigger than its pictures and with such heavy fleshy petals that the stems droop.

Jonkheer J. L. Mock, Killarney, Duchess of Wellington, Mme. Edouard Herriot, Mme. Caroline Testout, Old Gold, Irish Simplicity, Augustus Hartmann, and Willowmere were some of the most impressive varieties.

Gruss an Teplitz, without disbudding, has as large blooms as could only be had with the best of attention elsewhere and would doubtless make much larger bushes if not pruned back so

hard. All the old Hybrid Perpetuals do well, except George Arends, which is rather tender. Druschki is magnificent.

Of the climbers, the luxuriance and bright color of Tausendschön is noticeable. Roserie, which in Hartford is a decidedly unstable sport, is there a good, fairly even Killarney pink, and one of the most beautiful climbers on the island. Dorothy Perkins is so large as to look like something else, especially on Manetti stock. The season of 1920 being a late one, the Crimson Rambler was just starting to bloom at the end of July. Newport Fairy, Hiawatha and American Pillar were particularly effective as seen tumbling over the rocks.

It seems to be too cold on Mt. Desert for Silver Moon with its Cherokee parentage. A plant of Keystone had bloomed but once in eight seasons, the writer was told.

But the local standby was *Rugosa* in every variety, from snowy white to a particularly hideous semi-double magenta, extra rampant, like everything of that color. The Dane garden has some old pink bushes about eight feet high, whose stems should be described as trunks. The gay hips attract the birds, who are consequently planting the *Rugosas* on the outlying islands.

I was told of a copper-colored single rose (probably Austrian Copper) on Greening's Island, which had been brought from Norway, but I did not have an opportunity to inspect it.

Of the shrubby species, *R. rubrifolia* is particularly luxuriant, and a blush form of *R. multiflora* makes great bushes.

In the village gardens were all the old favorites: Alba, Gallica, Old Blush, Cabbage, Mme. Plantier, and the like. Harison's Yellow was still in bloom at Castine on July 10. There were Cinnamon and Sweet-brier bushes about the old cellar-holes. The wild roses are large and brilliant, as they are all along the Maine coast.

The beautiful rose-garden at the Seal Harbor estate of E. B. Dane was originally planted with roses from Ireland, but now the local nurseries, at Bar Harbor, carry the more common roses.

I trust that what I have written will serve as encouragement to all those living within the limits of the white space on the Rose-Zone Map, as showing how much larger a rose-repertoire may be had than was to be expected according to that map.

Meanwhile, go to Mt. Desert, and see for yourselves!

My Back-Yard Roses in Their Fourth Season

By ARTHUR P. GREELEY, Washington, D. C.

EDITOR'S NOTE.—No apology is made for continuing the showing of rose conditions in Mr. Greeley's back-yard rose-test garden. Indeed, it is rather with pride that the presentation is made, for it is the back yards of America that must make the rose universal, rather than the test-gardens and the great estates. Attention is called to what Mr. Greeley has to say about stimulation of the plants taking the place of sprays and powders for protection.

In his note transmitting the article, Mr. Greeley wishes sometimes his back yard were three times larger, and adds:

"However, my house is full of roses, some fresh every day, from the middle of May until November, and I find room also for tulips, oriental poppies, gladioli, dahlias, Japanese anemones, and chrysanthemums." Not bad for a back yard!

THE comparatively cool weather of the season of 1920 resulted, with my back-yard roses, in an unusually high average in quality of bloom and in more August bloom than usual. The total for the season, 2,738, was only a little less than for 1919, though, for some reason which I cannot explain, several roses, usually large bloomers, like George Elger and Mme. Edmee Metz, both grafted, gave only a very few blooms. There seems to be a tendency of the grafted roses to drop off in number of blooms as the plants get older, and a tendency of those on their own roots to bloom more freely as they grow older.

I used wood-ashes, with phosphate rock and some nitrate of soda, with the usual pulverized sheep manure as fertilizer, particularly in the early spring, and the plants responded with unusually vigorous foliage, noticeably large in size and high in color. Except for touching the young shoots with "Black-leaf 40" solution to dispose of the green aphids, I used nothing in the way of spray or powder, and had rather less than usual of black spot and mildew. I think that stimulation of the plants into vigorous growth early in the spring, and thus increasing their resistance, helps quite as much as the sprays and powders.

I was greatly pleased with some of the roses which were new with me this season, particularly Jacques Porcher, Mrs. S. K. Rindge, Grange Colombe, and Raymond, all grafted, and Mrs. Charles J. Bell which, on own root, did very well.

In the tabulated statement which follows I give the average for four seasons, except as noted. Eugenie Lamesch and Leonie

Lamesch are classed as Polyanthas, but to me are more like small Hybrid Teas. They are both very attractive, particularly in bud.

ROSES GIVING OVER FIFTY BLOOMS

(O.R. signifies own-root plants; G. refers to those grafted, usually on Multiflora.)

NAME		Season	Average Blooms	1920 Blooms
Mme. Eugene Marlitt. Bour.	O.R.	12th	185	234
Ecarlate. H.T.	O.R.	4th	113	185
Eugenie Lamesch. Poly.	O.R.	5th	112	126
G. Nabonnand. T.	O.R.	11th	229	97
Lady Ursula. H.T.	G.	4th	82	87
Winter Gem. T.	O.R.	12th	45	58
Antoine Rivoire. H.T.	O.R.	5th	54	57
Lucullus. Ben.	O.R.	12th	80	51
Leonie Lamesch. Poly	G.	3d	†92	50

ROSES GIVING TWENTY-FIVE OR MORE AND LESS THAN FIFTY BLOOMS

NAME		Season	Average Blooms	1920 Blooms
La Tosca. H.T.	O.R.	4th	25	47
Mrs. Aaron Ward. H.T. (No. 2.)	G.	1st		42
Gruss an Teplitz. H.T.	O.R.	4th	33	41
Gloire Lyonnaise. H.T.	O.R.	11th	36	35
Mrs. Hugh Dickson. H.T.	O.R.	4th	14	34
Jacques Porcher. H.T.	G.	1st		32
Grossherzog Friedrich. H.T.	G.	1st		29
Columbia. H.T. (No. 2.)	G.	1st		28
Mme. Maurice de Luze. H.T. (No. 2.)	G.	1st		28
Mme. Segond-Weber. H.T. (No. 2.)	G.	1st		27
Gustav Grünerwald. H.T.	G.	2d	*24	26
General-Superior Arnold Janssen. H.T. (No. 1.)	G.	3d	†37	26
Mrs. A. R. Waddell. H.T.	G.	4th	†19	26
Mrs. Wakefield Christie-Miller. H.T.	G.	1st		25
Constance. Per.	G.	1st		25
Mrs. George Shawyer. H.T.	O.R.	3d	*20	25

ROSES GIVING FIFTEEN OR MORE AND LESS THAN TWENTY-FIVE BLOOMS

NAME		Season	Average Blooms	1920 Blooms
Lieutenant Chauré	G.	1st		24
Frau Karl Druschki. H.P.	O.R.	5th	19	23
Lady Pirrie. H.T. (No. 2.)	G.	1st		23
Radiance. H.T.	O.R.	5th	24	23
Grange Colombe. H.T.	G.	1st		23
Prince de Bulgarie	G.	1st		23
Ophelia. H.T. (No. 2.)	G.	2d	*31	22
Raymond. Per.	G.	1st		22
Radiance. H.T. (No. 1.)	O.R.	5th	19	22

†Average for three seasons.

*Average for two seasons.

ROSES GIVING FIFTEEN OR MORE AND LESS THAN TWENTY-FIVE BLOOMS, con.

NAME		Season	Average Blooms	1920 Blooms
Mrs. Ambrose Ricardo. H.T.	G.	1st		21
Hadley. H.T.	O.R.	3d	†12	20
Mme. Jules Bouché. H.T. (No. 1.)	O.R.	3d	21	20
Mrs. S. K. Rindge. Per.	G.	1st		20
Lady Ashtown. H.T.	G.	2d	*19	19
Killarney Queen. H.T.	G.	2d	*24	19
George C. Waud. H.T.	G.	2d	*25	19
My Maryland. H.T.	G.	3d	*14	19
Mme. Caroline Testout. H.T.	G.	1st		18
Louise Catherine Breslau. Per.	G.	1st		18
Ophelia. H.T. (No. 1.)	G.	2d	*29	17
Marie Van Houtte. T.	O.R.	4th	†17	24
Harry Kirk. T.	O.R.	5th	19	17
White Maman Cochet. T. (No. 1.)	O.R.	11th	18	17
Mrs. B. R. Cant. T.	O.R.	4th	16	16
Mme. Edouard Herriot. Per. (No. 2.)	G.	1st		16
Colonel Leclerc. H.T.	G.	1st		16
Blumenschmidt. T.	G.	2d	*14	16
Red Radiance. H.T.	G.	1st		15
Mme. Charles Lutaud. H.T.	O.R.	4th	7	15
Königin Carola. H.T.	G.	3d	†12	15
Reine Marguerite d'Italie. H.T.	G.	2d	*13	15

ROSES GIVING TEN OR MORE AND LESS THAN
FIFTEEN BLOOMS

NAME		Season	Average Blooms	1920 Blooms
Mme. Melanie Soupert. H.T. (No. 2.)	G.	1st		14
Friedrichsruh. H.T.	O.R.	4th	12	14
Farbenkönigin. H.T.	G.	2d	*19	14
Mrs. Aaron Ward. H.T. (No. 1.)	O.R.	4th	12	14
Mme. Edmond Sablayrolles. T.	G.	3d	†16	14
Willowmere. Per.	G.	2d	*12	13
Mme. Maurice de Luze. H.T. (No. 1.)	G.	3d	†24	13
Mme. Edouard Herriot. Per. (No. 1.)	O.R.	4th	12	13
Lady Pirrie. H.T. (No. 1.)	G.	4th	21	13
Autumn Tints. H.T.	G.	4th	12	12
Laurent Carle. H.T.	G.	1st		12
Edward Mawley. H.T. (No. 2.)	G.	1st		12
Flame of Fire. H.T.	G.	1st		11
Lady Plymouth. T.	O.R.	4th	9	11
Paul Neyron. H.P.	O.R.	11th	12	11
Panama. H.T.	O.R.	3d	†11	11
Lyon Rose. Per. (No. 2.)	G.	1st		11
Margaret Dickson Hamill. H.T. (No. 2.)	G.	1st		11
G. Amédée Hammond. H.T.	O.R.	4th	12	11
White Maman Cochet. T. (No. 2.)	G.	3d	†14	11
Mrs. Charles E. Pearson. H.T.	G.	4th	10	11
Gen. MacArthur. H.T.	G.	1st		10
General-Superior Arnold Janssen. H.T. (No. 2.)	G.	1st		10
Lyon Rose. Per. (No. 1.)	O.R.	4th	9	10
Mildred Grant. H.T.	O.R.	3d	*9	10
Joseph Hill. H.T. (No. 1.)	O.R.	3d	†16	10
Marquise de Querhoent. T.	O.R.	4th	12	10

¹ Average for three seasons.

*Average for two seasons.

ROSES GIVING FIVE TO TEN BLOOMS

NAME		Season	Average Blooms	1920 Blooms
Columbia. H.T. (No. 1.)	G.	2d	*6	9
Etoile de France. H.T.	G.	3d	†12	9
H. D. M. Barton. H.T. (No. 2.)	G.	1st		9
Mme. Jenny Gillemot. H.T.	G.	2d	*6	9
Edward Mawley. H.T. (No. 1.)	O.R.	4th	7	9
Hoosier Beauty. H.T. (No. 1.)	O.R.	4th	15	9
Jonkheer J. L. Mock. H.T.	G.	1st		9
National Emblem. H.T.	G.	4th	11	9
General MacArthur. H.T.	O.R.	4th	5	9
Duchess of Sutherland. H.T.	G.	3d	†8	8
Baron Palm. H.T.	O.R.	3d	†8	8
Lady Alice Stanley. H.T. (No. 1.)	G.	4th	4	8
Lady Alice Stanley. H.T. (No. 2.)	G.	3d	†13	8
Tipperary. H.T.	G.	3d	†9	8
Mme. Marcel Delanney. H.T.	G.	2d	*11	8
Mrs. Bullen. Per.	G.	1st		7
Comte G. de Rochemur. H.T.	O.R.	4th	8	7
H. D. M. Barton. H.T. (No. 1.)	G.	1st		7
Elli Hartmann. H.T.	G.	1st		7
Etoile Poitevine. H.T.	O.R.	3d	†9	7
George Elger. Poly.	G.	3d	†100	6
Mme. Edmee Metz. H.T.	G.	3d	†34	6
Mme. Colette Martinet. H.T.	G.	3d	†13	6
Robert Huey. H.T.	G.	2d	*9	6
Recuerdo de Antonio Peluffo. H.T.	O.R.	2d	*7	6
William R. Smith. T.	O.R.	2d	*5	6
Mary, Countess of Ilchester. H.T.	O.R.	3d	†10	6
Mrs. Charles J. Bell. H.T.	O.R.	1st		6
Gorgeous. H.T. (No. 1.)	O.R.	4th	8	5
Gorgeous. H.T. (No. 2.)	G.	1st		5
Earl of Warwick. H.T.	G.	3d	†5	5
Mme. Leon Pain. H.T.	O.R.	4th	6	5

†Average for three seasons.

*Average for two seasons.

Of the roses which gave over fifty blooms, I consider Lady Ursula and Antoine Rivoire and the two Lamesch Polyanthas among my best roses for cutting, and Ecarlate and G. Nabonnand among the best decorative. All of these give enough blooms for my household purposes, and I have not put in duplicates of them. Of the roses giving a less number of blooms, I have put in a second plant of most of those which are most satisfactory to me in beauty of bloom. The roses thus duplicated are: Mrs. Aaron Ward, Columbia, Mme. Maurice de Luze, Mme. Segond-Weber, General-Superior Arnold Janssen, Lady Pirrie, Ophelia, Radiance, Mme. Jules Bouché, White Maman Cochet, Mme. Edouard Herriot, Mme. Melanie Soupert, Gen. MacArthur, Edward Mawley, Lyon, H. D. M. Barton, Lady Alice Stanley, Joseph Hill, Hoosier Beauty, and Gorgeous. I intend to put in second plants of Constance, Mrs. Ambrose Ricardo,

Mrs. S. K. Rindge, Jacques Porcher, and Laurent Carle this spring. A plant of Miss Lolita Armour failed me, for some reason, after giving two beautiful blooms. I shall try it again. Plants of Premier, Crusader, Pilgrim, and Mrs. John Cook did not give me enough blooms to put them on the above list, but I expect good things from all of them the coming season.

The Working Out of a Real Rose-Garden

By HAROLD A. CAPARN, New York City

EDITOR'S NOTE.—In all the successive issues of the Annual, the Editor has urged, directly or through the better writings of his friends, the landscape use of the rose and the shrubbery value of many of the single forms. Mr. Caparn, a capable landscape architect, in 1918 gave us an account of a real rose-garden, in which roses dominate, which he had planted. He now tells and shows us what three years of time have done to make the design vital. (See Plate X, facing this page.)

THE rose-garden of William J. Tully, at Locust Valley, L. I., was described in the Rose Annual for 1918, and those who will take it down from their shelves will find the plan reproduced on page 25. At that time the garden was in the skeleton stage, without enough clothing foliage to justify a visit of the camera-man. Since then it has attained the respectable growth that the illustration shows.

In 1916 the site included a precipitous chicken-yard, with some anemic fruit trees, one handsome mulberry tree, and a piece of left-over ground. It was filled and leveled and laid out in a rectangle 200 feet long and 76 feet wide. The photograph, taken last June, will give an idea of its present appearance in summer, if the gentle reader will make imaginative and generous allowance for the absence of color, sunlight, depth, atmosphere, and the indescribable pulsing vigor and vitality of any scene growing green and multicolored under the summer sky.

The umbrageous mulberry tree above referred to made it impossible to grow roses to advantage near it, so a row of wood arches covered with climbing roses separates the rose-garden proper from the mulberry with its attendant masses of rhododendrons, kalmias, azaleas, *Ilex glabra*, and other foliage, evergreen and deciduous, that will thrive near its friendly shelter.



PLATE X. The Tully Rose-Garden

(See article, "The Working Out of a Real Rose-Garden," page 72)

All this is seen from the rose-garden proper through the arches, and forms a background for the roses and a terminus of the whole composition. The opposite end is formed by a pergola (covered, of course, with climbing roses), from which this view was taken.

No rose enthusiast, and few other flower-lovers, will deny that the rose is the most fascinating of all flowers. But when they speak of the rose they mean the double rose, the Hybrid Perpetuals, Hybrid Teas, Teas, Noisettes, and so on, the General Jacks, American Beauties, Testouts, Mrs. Aaron Wards, Killarneys, and the others. They seem to forget that if these are the most lovely of all double flowers, the single roses have a quality all their own, only approached by their near relation, the apple blossom. But the plants that produce these imperial double garden roses are almost unmanageable in a garden scheme. Scrawny, gawky, ill-clothed, they seem to care nothing for their looks and for getting on harmoniously with their neighbors. They are the despair of garden designers, especially as many a garden owner insists on spoiling his garden or the front of his house with ill-judged displays of his favorite flower. Nevertheless, though they refuse to mass, an occasional Hybrid Perpetual may be used in mixed shrubbery if its neighbors are selected with due judgment.

But single roses, the wild species of the temperate zones, on the other hand, all form good bushes, or, at least, bushes that can be used effectively in one conjunction or another. One of them, *Rosa rugosa*, has such fine qualities of form and foliage that it is to be found in most mixed shrubberies. Among the climbing roses, too, with the blood of Wichuraiana, are now a considerable number of varieties, not merely with decorative flower-masses, but with rich and glossy foliage. Such are Gardenia, Dr. W. Van Fleet, Evergreen Gem, and others.

Most designers of rose-gardens who attempt to make them more than mere rows of beds introduce shrubs, trees, and vines of other species to make their creation look like a garden instead of a nursery. What they are really trying to do is to distract attention from the roses, and to satisfy the eye with a grouping of conifers, architecture, lily-ponds, or whatever the means may be. This may be very meritorious as design, but it hardly seems

correct to call it a "rose" garden. Besides, it lessens the individuality and distinction of the rose-garden by the repetition of elements already found in other parts of the grounds.

It therefore seemed to the writer an interesting experiment, and one practically certain of success if properly worked out, to make a garden entirely of roses; not merely a place to raise flowers for cutting, but one in which the decorative character should be supplied, not by miscellaneous nursery stock, but by roses themselves, the wild or single kinds of which many are now obtainable. One advantage of making a shrubbery entirely of roses is that the foliage is sure to harmonize, not only in the mass, but with the garden roses in the beds.

Many wild roses, though attractive bushes in themselves, do not make good companions for the most popular garden shrubs. They are too wild-looking, become shabby rather early, and are not sophisticated enough. But among other roses this unfavorable contrast disappears, and surely the use of single roses ought to add greatly to the interest of a rose-garden.

So this Tully rose-garden came into being, a simple scheme with wood fences supporting climbing roses for boundaries, along them twelve-foot borders of single or wild roses (see the Rose Annual for 1918 for the kinds); then long beds of Hybrid Perpetuals and Hybrid Teas. All this appears plainly in the picture. The reader must be the judge of the success of this scheme, remembering that he is not invited to inspect and criticize a rare collection of garden roses, but to judge what kind of contribution the rose can make toward garden scenery. The writer thinks that the success has been sufficient to justify printing the picture, and the Editor seems to agree with him. If the gentle reader should visit this garden when rose-time is over, or not yet begun, he will probably find that the rose can be attractive and pictorial at other seasons than that of blooming.

REMEMBER THE EDITOR!

Members of the American Rose Society are urged to send notes of rose happenings and suggestions for rose articles to the Editor. The members make the book; the Editor merely puts it together. Please supply the "makings!"

A Better Back-Yard Garden

By ROY F. ANTHONY, Newark, N. J.

EDITOR'S NOTE.—Mr. Anthony's statement explains itself. It is with pleasure that these instructive bloom-records are published; they always help to better results. The reader may profitably note that this list refers to a small bed, and that on "made" ground. Why be discouraged, ever, when success can thus be had?

ON reading "Three Years of Back-Yard Bloom-Record," in the 1920 Rose Annual, I was surprised at the small number of blooms from some of the roses with which I was familiar. I had never kept a record of my own plants, but I felt sure that some of them had done better than those of Mr. Greeley. To ascertain if my recollection was correct, a record was kept of the 1920 season. I send it to you in the hope that it may be of some interest and assistance to others who have small rose-gardens.

I know of no more confusing and hopeless task for a beginner than to sit down with two or three rose catalogues and try to pick out a couple of dozen roses for a back-yard garden. All seem to be free bloomers, and those marvelous colors: "intense lemon-chrome, washed with solid maddery orange, almost a golden orange, which becomes a deep, non-fading canary-yellow; the guard petals are singed crimson-orange with odd reflexes, tipped with brilliant coppery crimson!" Wow!

I like to try them all, and as my space is limited, am always rather pleased when a few are winter-killed, so I can replace them with untried varieties. My bed is about four feet wide and thirty feet long, with the roses in a double row. It is on ground filled in with ashes some years ago, the soil being about eighteen inches deep over the ashes. In the fall the bed is covered with several inches of horse manure, which is turned under in the spring, with the addition of a liberal quantity of bone-meal. There is a full exposure to the sun the entire day. Owing to the cold winters, the bushes, with one or two exceptions, freeze back so that they must be pruned to within about six or eight inches of the ground.

All the Hybrid Teas are grafted on Japanese Multiflora,

were two years old when planted, and were set out in the spring, while dormant. The bed is cultivated after every rain, and at least once a week, so irrigation is seldom necessary. If there is a prolonged dry spell, the ground is thoroughly saturated and cultivated as soon as the top soil has dried sufficiently.

BLOOM-RECORD FOR 1920

NAME	Set Out	June	July	Aug.	Sept.	Oct.	Total
Mary, Countess of Ilchester	1913	8	8	4	2	1	23
Red Radiance	1917	6	7	2	3		18
Mme. Charles Lutaud	1920	1	4	8	1	1	15
Molly Sharman-Crawford	1913	15	17	5	15	2	54
Duchess of Wellington	1920	6	9	10	15	4	44
Mme. Edouard Herriot	1916	8	11	2	5	2	28
Premier	1920	1	5	2	6	4	19
Premier	1920	2	3	4	8	4	21
Richmond	1917	15	11	5	5	2	38
Mme. Edouard Herriot	1920	5	4	2	2	3	16
Kaiserin Auguste Victoria	1920	5	1	1	1	2	10
Grass an Teplitz	1910	50	179	121	167	32	549
Killarney Queen	1920	4	6	1	6	1	18
Willowmere	1920	2	2	2	1	1	8
Lieutenant Chauré	1920	5	3		8	2	18
Frau Karl Druschki	1911	124	100	7	14	2	247
Hadley	1920	3	1	1	2		7
Mme. Melanie Soupert	1920			1	2		3
Killarney	1913	6	2	2	3		13
Hugh Dickson	1911	69	3	1			73
Radiance	1915	18	7	11	4	1	41
Baroness de Rothschild	1911	66	5	3			74
H. V. Machin	1920	1	1	1			3
Mme. Ravary	1912	16	16	5	12	9	58
Mrs. F. W. Vanderbilt	1916	4	9	8	3	3	27
Old Gold	1920	2	12	6	5	4	29
Lady Roberts	1912	19	6	3	7		35
My Maryland	1920	1	1	3	2	1	8
Joseph Hill	1912	34	24	13	28	6	105
Lady Mary Ward	1920		5		2		7
Mrs. Ambrose Ricardo	1920	1	5	2	2	2	12
Mme. Jules Groles	1920	2	7	3	6	1	19
Dean Hole	1911	15	15	3	12	3	48
Mrs. A. R. Waddell	1920	2	11	3	8	2	26
Lady Pirrie	1920	2	7	3	3		15
Lady Ashtown	1920	16	13	4	8	2	43
Betty	1920	1	2	2	2		7

THE 1922 ROSE TRIP TO THE PACIFIC NORTHWEST

ought to prove an event in the life of every rose-lover who takes it. A month of travel across the continent, through the greater national parks, seeing roses everywhere, and talking and thinking roses, will be a vacation of unique benefit. Write the Secretary for information.

A Well-Placed Private Rose-Garden

By THE EDITOR

IN JULY, 1920, at the time when usually the first flush of rose-growth has succeeded to the hard times of summer, the Editor had the pleasure of visiting the rose-garden of Mrs. Harold Irving Pratt, at Glen Cove, Long Island (N. Y.), of which a general picture is printed as Plate XI, facing page 81.

The most impressive thing in the first view was the general prosperity of all the roses. But one variety seemed to be unhappy. There was no black spot; there were no aphids. Replies as to how this came about were illuminating; it seemed that instead of using sprays and dusts and dopes, the gardener simply kept the plants in active growing condition, and therefore they were able to throw off incidental insect attacks.

The picture shows the general arrangement of the garden, which has a suggestion of an amphitheatre with a lovely vista toward Long Island Sound as its focal point, sufficiently distant to have no influence on the growth of the roses or of great trees which must undoubtedly protect from rough winds and do give the background and the semi-seclusion that make the garden most inviting. Some sixty-four varieties of roses were present in little colonies, according to their desirability and merit.

While Mrs. Pratt has capable garden workers, she is herself a well-posted rosarian who has seen the great gardens everywhere. She writes thus of her own garden:

"The situation of the garden, the composition of the soil, the pruning and spraying are to my mind the five component elements that make or mar success in rose-growing. After sunlight, the first essential in the building of a rose-garden is free circulation of air. That offers a problem, for roses must have background if the beds are not to look like oriental rugs flung out on the lawn. Yet too much background cuts off air. The mean between sufficient background and free circulation of air, the topography of our garden has permitted us to solve. The few cedars on the terraces and the suggestion of background at the entrance to the garden have not interfered.

"Our roses are grown in a glade which we have graded to an amphitheatre with three terraces looking to the north. These terraces have grass slopes as background, and against them we grow our roses in borders.

"The borders are four feet wide, and were excavated to a depth of two feet. No artificial drainage was necessary, as two feet brought us to gravel. The soil includes six inches of sod, grass side down, which we leave unforked, eight inches of well-rotted cow-manure, over which we throw a half-inch of humus, and about one-sixteenth of an inch of lime. To this we add six inches of heavy yellow loam as a substitute for clay, and lastly six inches of top soil. This is forked over very thoroughly, leaving the bottom sod untouched.

"We prepare the beds in the autumn and leave them settle until spring, expecting them then to be an inch or so below the grass path, so that they would better retain the moisture.

"The roses were planted twelve inches apart, all advice to the contrary. We have continued to keep to that distance, save for Mrs. Aaron Ward, which is so broad-growing that we have had to give it eighteen inches of space. We use three rows, one directly behind the other, so that between them are little avenues of foliage under which the soil is worked.

"In transplanting some of the extra-strong growers one spring, we found that the roots had not interlaced, but had struck downward toward the sod. We believe the close planting has not injured the roses and it does give more closely covered ground, and, to my mind, makes a prettier garden."

Mrs. Pratt tells of the several trial and progress years during which everything was done that needed to be done to protect the roses from bugs and bothers. When they became thoroughly established a minimum of insecticide and fungicide treatment was required. She also tells of the care and system with which the roses are handled, and of the way in which new varieties are searched for and placed. With an average of twenty-five plants of a kind, her trials are distinctly effective, and she has always enough roses of a kind for table decoration.

This rose-garden is a beautiful model of how taste, means, and opportunity may join to produce a desirable result.

A Hospital Rose-Garden

By DAVID LUMSDEN

Walter Reed U. S. Army General Hospital, Washington, D. C.

EDITOR'S NOTE.—Very much worth while is the plan here set forth by Prof. Lumsden of a rose-garden which is a working part of a great hospital. Nowhere else can the rose do better service; nowhere else will it be more fully appreciated.

WALTER REED HOSPITAL is an institution of an unusual kind. It is the one largest general hospital of the United States Army, and to its completion and perfection have been given the best efforts of the great doctors and surgeons developed in America by the sad needs of the World War.

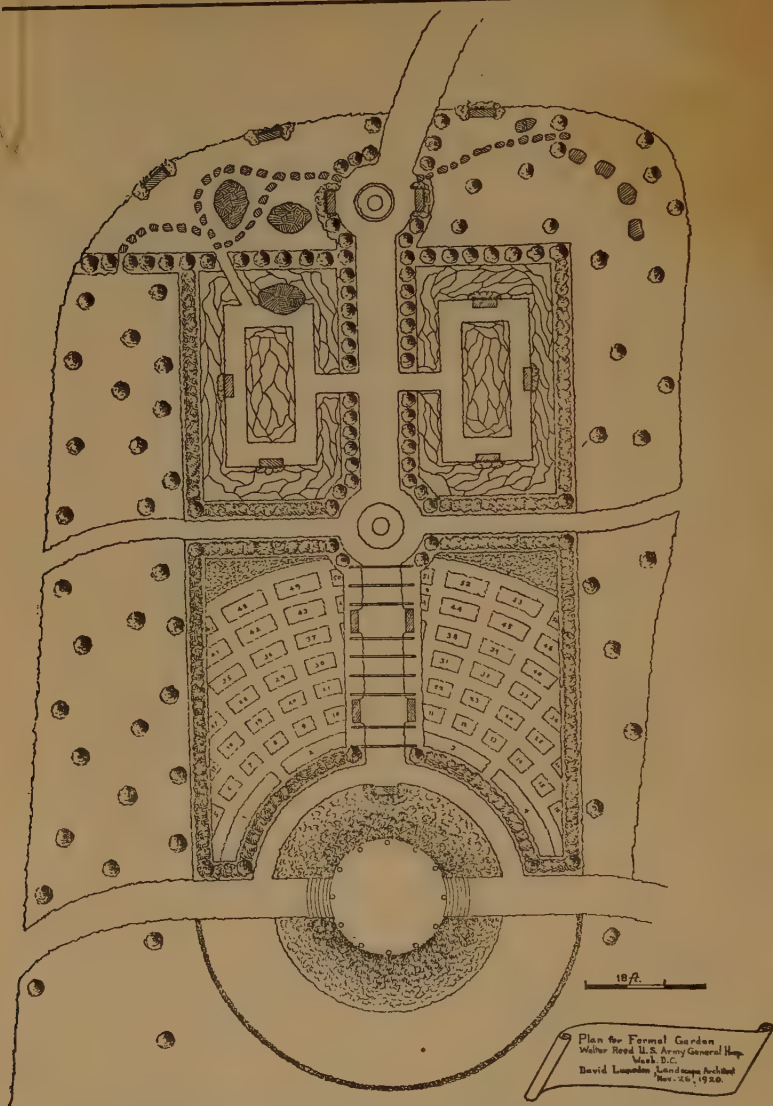
Not merely an operating and convalescent institution is Walter Reed; it adds all the facilities for rehabilitation which modern medical science has proposed, and in it wonders of restoration have been accomplished.

The great garden here described will be of direct aid in the restorative work of the hospital, and it has been designed with that in mind. The Plan (p. 80) gives the general layout.

The garden runs approximately north and south. The band-stand on the north being in direct axis with the Administration Building, is in form of architecture modeled after the Temple of Love at Versailles. Directly north of the band-stand is a semicircular reflecting pool, a planting of low shrubbery filling the intervening space between the pool and band-stand. A central walk ten feet wide traverses the entire length of the sunken garden, and enters the rock and physic gardens to the south. A high ramp at the southern end is planted with *Ulmus pumila*, *U. americana*, *Cornus florida*, and its variety *rubra* above, and with *Rhododendron carolinianum*, *R. Kaempferi*, and *Leucothoë Catesbaei* on the slope, the latter being at the base.

The plant material used for formal effects throughout the garden is largely *Thuja occidentalis pyramidalis*. A rose pergola extends from the walk south of the band-stand to the sun-dial in the center of the garden.

The rose-beds are situated in radiating lines centered from the band-stand. The pathways between these beds are of green turf. The roses have been selected for this planting, upon the



A Hospital Rose-Garden is Included in This Plan. (See page 79.)



PLATE XI. The Rose-Garden of Mrs. Harold Irving Pratt (See page 77)

basis of showing the following merits: (a) Adaptability to the Washington climate; (b) floriferousness; (c) length of blooming period; (d) harmony of color. In one or two instances, such varieties as the old General Jacqueminot and Paul Neyron have been planted by special request.

The standard roses have been placed intermediate between the pergola pillars. The two triangular beds at the rear of the rose-garden are planted with Dr. Van Fleet's choice new hybrid roses.

The location of the sunken garden is a desirable one, it being placed in a natural valley. A natural amphitheatre with a grassy slope is situated between the Administration Building and the garden. This allows the free use of the grass to patients and others listening to the band concerts which are to be held weekly during the summer and fall months.

The nurses' graduation exercises will be held each year on this spot, and early this June, the Walter Reed Hospital expects to graduate about four hundred nurses.

On the east of the garden, the slopes are planted to *Prunus serrulata* and various flowering and berry-bearing shrubs. The west slopes are planted to species of syringas and many varieties of *S. vulgaris*. The upper portion of the slope is adorned with the flowering dogwoods.

The welfare of our boys has been kept foremost in our garden work. Benches and settees will be arranged throughout, and on the slopes and paths leading to the garden, and everything will be done to make our veterans comfortable and their surroundings conducive to restoration and to the happiness of the outdoors.

ROSES AT OTHER HOSPITALS

Why not have roses made the special plants about many private and public hospitals? No other flower will do so much for a sick woman or a sick man. Roses are good medicine!

2
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Rose-Garden at the New York Botanical Garden

By GEORGE V. NASH, Bronx Park, N. Y.

EDITOR'S NOTE.—The October, 1920, meeting of the American Rose Society, was held in the New York Botanical Garden. Some of us who attended had a long hunt to find the "Mansion," in which the meeting occurred, and in which we were hospitably entertained. Not far away was an interesting rose-garden, and it was at the Editor's request that Mr. Nash kindly prepared an account of this garden.

IN 1915 an arrangement was made between the New York Botanical Garden and the Horticultural Society of New York for the coöperative development of a rose-garden. This arrangement provides that the former shall furnish the site for the garden and take care of its maintenance, while the Horticultural Society of New York is to furnish the rose plants. Pursuant to this arrangement, a ground plan for the garden, submitted by Mrs. Max Farrand, was approved in the spring of 1916, and in May of the same year ground was formally broken. Active operations in the actual planting of the roses began in the spring of 1917.

The area selected for the rose-garden is in a natural valley just south of the Mansion in the New York Botanical Garden. This is a well-sheltered situation, protected on all sides by woods and ridges. The space occupied is about one and one-quarter acres in extent, and is of a triangular shape; the length is about 350 feet and its greatest width about 200 feet. Drains were laid throughout this area, to insure a proper drainage of the tract, and all obtruding rock masses removed. This being accomplished, two feet of top soil was deposited over the tract, so that there is now this quantity of soil over and above the drainage system.

The ground plan is an inequilateral triangle with truncated angles, the longest side parallel with the wooded ridge on the east. In the center of this is a circular area, at present in grass, with concentric series of paths and beds for a certain distance. Radiating from this central area are four wide paths which serve as the main arteries; intermediate grass walks also radiate from

this same center. A marginal made path is also provided, this being separated from the garden boundary by a bed approximately eight feet wide. Between this marginal walk and the concentric series referred to are many beds, arranged in series paralleling the made walks, and separated by grass paths.

The types of roses represented are: Hybrid Teas, Teas, Pernetianas, Hybrid Perpetuals, Hybrid Sweet Briars, Chinas, Bourbons, Dwarf Polyanthas, Mosses, and Rugosas. The climbing sorts are not represented as yet, but their proper presentation is under consideration. Of these types the Hybrid Teas, Teas, and Pernetianas are in the beds within the marginal walk, the others being placed between this marginal walk and the boundary of the garden. This practically has the effect of making a frame of the June roses, mostly tall varieties, enclosing the lower and more continuous bloomers in the central beds. The Dwarf Polyantha roses are mainly in the concentric beds in the center of the area.

It has been the aim in the planting of this garden to provide a collection of roses, as many kinds as possible, including novelties, so that rose-lovers could come here and see for themselves many of the kinds offered for sale in the nurseries. To aid such, a system of labeling, an essential part in an educational institution such as the New York Botanical Garden, has been employed by which each rose is supplied with a conspicuous label giving information as to the type of rose, the name of the rose, and the name and address of the party donating it. It has not been the aim to select a few only of the many roses offered, but rather to present a great many kinds; the endeavor has been made to present these in various ways. There are beds containing but one kind, sometimes as many as eighty individuals, where the mass effect of color and form may be emphasized; in other beds there are two to four kinds; while in still others there are a few individuals of many kinds. In this way the various effects may be studied.

The plants for the rose-garden—over 5,000—have been donated by the following parties: Messrs. Bobbink & Atkins, Rutherford, N. J.; F. R. Pierson, Tarrytown, N. Y.; A. N. Pierson, Inc., Cromwell, Conn.; and Henry A. Dreer, Philadelphia, Pa. Over 500 kinds have been grown.

The garden has now passed through three winters. The conditions of the first two were normal, but the winter of 1919-20 was extreme, and resulted in the great destruction of rose bushes in many parts of the country. This garden suffered much more than in the previous winters, in which the loss had been that usual in the general run of rose-gardens. The greater mortality was not among the standard sorts, but mainly in the unusual and less popular varieties. The severity of the winter was indicated by the damage done to Hybrid Perpetuals, which never before in the history of the New York Botanical Garden had been so damaged. It has not been the custom to protect this type in any manner in previous years, and the spring has found them in excellent condition, the wood alive to the very tips of the canes. But the winter of 1919-20 presented such conditions that almost without exception the Hybrid Perpetuals were burned or killed back to the ground.

Following is a partial list of the roses in this garden, grouped according to types. Only those varieties of which 80 per cent or more were alive in June, 1920, have been included. Hybrid Perpetuals, Hybrid Sweet Briars, Mosses, and others have not been included, the list covering only the four more popular types, viz: Hybrid Tea, Tea, Pernetiana, and Dwarf Polyantha. The figures following the name indicate the percentage of plants alive in June of 1920.

HYBRID TEAS

- | | | |
|-------------------------------|------------------------------|--------------------------------|
| Aladdin, 100. | Edith Part, 86. | Isobel, 100. |
| Amalie de Greiff, 100. | Edward Bohane, 100. | Jacques Porcher, 100. |
| Amateur Teyssier, 80. | Ellen Willmott, 100. | J. B. Clark, 100. |
| Antoine Rivoire, 86. | Etoile de France, 100. | Johanna Sebus, 88. |
| Apotheker Georg Höfer, 100. | Flame of Fire, 100. | Kaiserin Auguste Victoria, 92. |
| Augustine Guinoisseau, 100. | Florence Haswell Veitch, 10. | Killarney, 92. |
| Augustus Hartmann, 80. | Florence Pemberton, 97. | Killarney Brilliant, 80. |
| Betty, 92. | Friedrichsruh, 100. | King George V, 100. |
| British Queen, 100. | General MacArthur, 88. | K. of K., 100. |
| Charles J. Grahame, 100. | General - Superior Arnold | Konigin Carola, 100. |
| Chateau de Clos Vougeot, 100. | Janssen, 100. | Lady Alice Stanley, 96. |
| Cheerful, 86. | Gloire des Belges, 100. | Lady Ashtown, 100. |
| Cherry Page, 100. | Gloire des Rosomanes (Ragged | Lady Greenall, 100. |
| Chrissie Mackellar, 100. | Robin) H. Ben, 100. | Lady Pirrie, 100. |
| Col. Leclerc, 92. | Gloire Lyonnaise, 100. | Lady Ursula, 83. |
| Columbia, 83. | Grange Colombe, 100. | La Tosca, 83. |
| Comte. G. de Rochemur, 100. | Grossherzog Friedrich, 100. | Lieut. Chauré, 100. |
| Crimson Chatenay, 80. | Gruss an Teplitz, 100. | Magnafrano, 83. |
| Crimson Emblem, 100. | Gustav Grünerwald, 100. | Mary, Countess of Ilchester, |
| Crimson Queen, 100. | Helen Gould, 88. | 83. |
| Donald Macdonald, 100. | Hon. Ina Bingham, 100. | Melanie Niedieck, 100. |
| Dora Hansen, 100. | H. V. Machin, 93. | Mevrouw Dora Van Tets, 83. |
| Duchess of Sutherland, 100. | Imogen, 86. | Milady, 100. |
| Duchess of Westminster, 83. | Indiana, 100. | Mlle. Simone Beaumez, 100. |
| Ecarlate, 100. | Irish Glory, 100. | Mme. Caroline Testout, 92. |

HYBRID TEAS, continued

- Mme. C. Chambard, 83.
 Mme. Jules Bouché, 100.
 Mme. Jules Grolez, 88.
 Mme. Leon Pain, 92.
 Mme. Marcel Delanney, 100.
 Mme. Maurice de Luze, 86.
 Mme. Paul Euler, 86.
 Mrs. Aaron Ward, 97.
 Mrs. Andrew Carnegie, 100.
 Mrs. Bertram J. Walker, 100.
 Mrs. David Jardine, 83.
 Mrs. Dudley Cross, 100.
 Mrs. Edward Powell, 100.
 Mrs. Franklin Dennison, 88.
 Mrs. George Gordon, 100.
 Mrs. G. W. Kershaw, 100.
 Mrs. Harold Brocklebank, 83.
 Mrs. Joseph H. Welch, 83.
 Mrs. MacKellar, 100.
 Mrs. Marshall Field, 86.
 Mrs. P. L. Baudet, 100.
- Mrs. R. D. McClure, 100.
 Mrs. Theodore Roosevelt, 100.
 Mrs. T. Hillas, 80.
 Mrs. Wakefield Christie-Miller, 94.
 Mrs. Wemyss Quin, 90.
 Old-Gold, 83.
 Ophelia, 93.
 Otto von Bismarck, 93.
 Panama, 98.
 Perle von Godesberg, 80.
 Pharisaer, 94.
 Pink Ophelia, 100.
 Primerose, 83.
 Queen Beatrice, 100.
 Queen of the Belgians, Arv., 100.
 Queen of Fragrance, 88.
 Radiance, 98.
 Red-letter Day, 88.
 Red Radiance, 95.
- Reine Marguerite d'Italie, 100.
 Renée Wilmart-Urban, 100.
 Richmond, 97.
 Robert Huey, 100.
 Robin Hood, 100.
 Rödhätte (Red Cap), 100.
 September Morn, 100.
 Souv. de Gustave Prat, 100.
 Souv. de Maria de Zayas, 100.
 Souv. du Pres. Carnot, 100.
 Ulster Gem, 100.
 Veluwezoom, 83.
 Viscountess Folkestone, 93.
 Walter Speed, 86.
 W. E. Lippiatt, 100.
 White Killarney, 84.
 White, Mme. Caroline Tescout, 100.
 William Cooper, 100.
 Winnie Davis, 100.

TEAS

- Blumenschmidt, 100.
 Hugo Roller, 100.
 Maman Cochet, 93.
- Marie Van Houtte, 100.
 Mlle. Franzisca Kruger, 88.
 Mrs. Herbert Stevens, 100.
- Souv. de Pierre Notting, 100.
 White Maman Cochet, 93.

PERNETIANAS

- Constance, 80.
 Grande Duchesse Marie-Ade-laide, 83.
- Juliet, 100.
 Louise Catherine Breslau, 91.
 Mme. Edouard Herriot, 91.
- Mme. Ruau, 80.
 Willowmere, 93.

DWARF POLYANTHAS

- Ada Redfield, 100.
 Baby Dorothy, 100.
 Baby Farbenkönigin, 100.
 Baby Lyon, 100.
 Baby Rambler, 100.
 Baby Tausendschön, 100.
 Cecile Brunner, 93.
 Charlotte Maerts, 100.
 Clotilde Soupert, 100.
 Echo, 100.
 Ellen Poulsen, 100.
 Erna Teschendorff, 100.
- Eugenie Lamesch, 100.
 George Elger, 96.
 Greta Kluis, 100.
 Gruss an Aachen, 100.
 Henriette Perier, 100.
 Jacques Kneppers, 100.
 Jessie, 100.
 Katharina Zeimet, 100.
 Katzchen Meisner, 100.
 Maman Turbat, 100.
 Marie Brissonet, 100.
 Marie Pavic, 100.
 Martha Keller, 100.
- Mignonette, 100.
 Miss Edith Cavell, 100.
 Mme. Jules Gouchault, 100.
 Mrs. W. H. Cutbush, 100.
 Mrs. Wm. Konig, 100.
 Orleans, 100.
 Paquerette, 100.
 Perle d'Or, 100.
 Phyllis, 100.
 Tip-Top, 100.
 Triomphe Orleanais, 100.
 Yvonne Rabier, 100.

The above lists only indicate the hardiness of the various kinds. Other characteristics come into question which make some of them of much more decorative value than others.

MORE PUBLIC ROSE-GARDENS

It is known that no part of the great park system of Hartford, Conn., is so efficient in attracting visitors—the proper purpose of all parks—as the Elizabeth Park Rose-Garden. Why not have many more park rose-gardens established in 1921?

Roses at Kew Gardens, England

By J. COUTTS

Royal Botanic Gardens, Kew, England

EDITOR'S NOTE.—With peculiar pleasure the Editor remembers the great beauty of a bed of the Hybrid Tea, *Pharisaer*, seen at Kew in November, 1913. It is to the kindness of Mrs. N. L. Britton, of the New York Botanic Gardens, that we owe the opportunity to learn of the rose at the greatest of the world's botanic gardens, through one of the officials.

SOME twenty-five years ago it was generally considered that the conditions at Kew were unfavorable for rose-growing, and garden roses were represented by a few Hybrid Perpetuals and several varieties of so-called "buttonhole" roses, such as *Mignonette* and *Paquerette*. About that time an extended trial of various Tea and Hybrid Tea varieties was made, and proved, on the whole, so successful that their cultivation has gradually been extended until today the collection includes several thousand plants, and, considering the conditions, they do remarkably well. The soil is sand and gravel—an old river-bed, in fact—and for this reason the beds have to be filled with prepared soil. The situation is very low and it is damp during the winter months, while during the summer we frequently get very hot dry spells. The plants are never protected in any way, and during the last twelve to fifteen years there have been no losses from frost, with the exception of one large bed of *William Allen Richardson*, and that was really old and worn-out; it had previously come through a more severe winter unharmed. The only losses experienced were after pruning, this apparently resulting from the cold drying east winds which we get every spring. A certain number of weak plants fail to start into growth, but, as a rule, this usually only amounts to two or three dozen, which cannot be considered excessive out of a collection of over three thousand plants.

Being a public garden, we require roses that grow well and flower freely throughout the season. All varieties that do not come up to the requirements are soon discarded. The planting is restricted to one variety in a bed. Some of the beds contain two dozen plants, but the most of them are fairly large and take about fifty, while in others as many as six dozen are used. The

latter are mostly devoted to strong-growing varieties, such as Hugh Dickson, Frau Karl Druschki, Gustave Regis, Lady Waterlow, and the like. They are planted wider apart than the less vigorous-growing sorts, and the strong shoots pegged down, results proving that this is the best way to grow these varieties.

A certain number of the more perpetual flowering varieties of the Hybrid Perpetuals are represented, also Teas, Chinas, and dwarf Polyanthas. Of the latter there is a set of beds planted with a few of the best varieties, of which Orleans, Jessie, Mrs. W. H. Cutbush, Katharina Zeimet may be mentioned.

Among some of the Teas that do well are Lady Hillingdon, Mrs. Herbert Stevens, Corallina, Mme. Antoine Mari, Alexander Hill Gray, Mme. Lambard, and Molly Sharman-Crawford. But the larger part of the collection is devoted to the Hybrid Teas, and they, as already stated, are restricted to good bedding varieties, there being no attempt to grow any of the purely exhibition roses. Of course, many of the so-called bedding varieties are fit for exhibition if disbudded and specially grown for that purpose.

Some of the beds have been planted from twelve to fifteen years and during that time not a single plant has been replaced. These include such fine garden roses as Mme. Caroline Testout, which makes bushes five feet high and were in gorgeous bloom throughout September, La Tosca, Mme. Ravary, and Grace Darling. Others that have been planted from eight to ten years are, Mrs. Aaron Ward, Mrs. A. R. Waddell, General MacArthur, Earl of Warwick, Cherry Page, and White Killarney. Lady Pirrie has proved to be one of our best roses. A bed planted some eight years ago has made bushes four to five feet high and last season many of the young shoots were four feet long, and, in some cases, carried as many as 65 flowers and buds on one shoot. Unfortunately, all roses do not behave in this way, for many fine varieties grow and flower well for several years, when they get worn out and have to be replaced. Two new roses, Los Angeles and Prince Charming, grown for the first time last season, did especially well. Prince Charming flowered with wonderful freedom all season, but I doubt whether it will grow strong enough to form a bed of any size. Los Angeles, too, was a very free bloomer and promises to be an acquisition, as it be-

longs to the Pernetiana group, our experiences with which, so far, have not been over-happy, the best one for our work being Louise Catherine Breslau.

We grow a good many varieties on their own roots. The Dwarf Polyanthas root readily and grow freely, as also do Mrs. Herbert Stevens, Princesse de Sagan, Comtesse du Cayla, Mme. Caroline Testout, Mme. Abel Chatenay, Frau Karl Druschki, La Tosca, Cherry Page, Ecarlate, Radiance, Clara Watson, General Schablikine, Ophelia, Moonlight, and Danæe; some of these are represented by beds entirely on their own roots. A large bed of Mme. Caroline Testout has been planted nine years and not a plant has died during that time. All the climbing Polyantha and Wichuraiana hybrids root freely and grow well on their own roots. The best of them are grown on the pergola or in large groups in a more natural manner in the rose dell.

Among the dwarf single-flowering roses that have proved suitable for bedding purposes, Princess Mary, crimson-scarlet, and Isobel, a carmine-red rose flushed with coppery scarlet, with pure yellow base to the petals, may be mentioned as especially fine; both flower freely right through the season. Isobel is, possibly, the finest single bedding rose we have at present. It has wonderful substance and lasts in a cut state for several days without dropping its petals.

On the whole, we have little trouble with fungoid diseases or insect pests, the most troublesome being mildew and green-fly, and both are easily dealt with if taken in time. Spraying with liver of sulphur (sulphide of potassium), one-half ounce to a gallon of water, to which a little soft soap is added, usually proves effective in the case of mildew. For green-fly, a paraffin emulsion to which a solution of tobacco is added is always used.

NEW IDEAS IN ROSE-GROWING

Do you have them, Mr. or Mrs. Rose Annual Reader? If so, don't be exclusive; "tell the world" through the Annual! The Editor (at Harrisburg, Pa.,) is anxious to act as your switchboard for information.

Select Roses for a Washington Garden

By CHAS. E. F. GERSDORFF, Washington, D. C.

EDITOR'S NOTE.—No more careful experimenter with roses can be found than Mr. Gersdorff, to whose patient ability the accuracy and completeness of the Official List of American Roses (page 173 of this Annual) is due, and who has also contributed the article on "Our Native Roses," beginning page 34.

ON planning my first rose-garden, I was immediately confronted with difficulties, particularly as to the selection of varieties. All were glowingly described, and I was led to believe that all were of the best and would make for me a beautiful garden. One season was enough to convince me that fine descriptions were not alone to be depended upon in the selection of varieties. At this time there were no suggestions offered by the trade, while now they are of too general a character, covering, as they do, the whole of the country. In the same section many roses vary in hardiness, productiveness, and quality of bloom.

Feeling the need of accurate data bearing on conditions here, I have for the past few years collected this information and have incorporated it in the form of a list of some of the best roses with full descriptions. I have relied upon the Arlington Rose-Test Garden, the report of Mr. A. P. Greeley of this city, as given in the 1918 and 1919 Annuals, and my own garden, where during the past five years I have tested some hundred or more different varieties.

Hybrid Perpetuals.—Roses in this class, known in France as Remontant roses because most of them there bloom again in the fall, are noted for their wealth of bloom and fragrance in the spring, and will withstand the winters here.

AMERICAN HYBRID PERPETUALS

Jubilee. Large, well-shaped blooms of deep velvety crimson. Foliage sufficient and healthy. Growth medium to tall. Hardy. Averages 57 blooms per season. Scored 88 points by the judges of the American Rose Society as grown in Arlington Rose-Test Garden in 1919.

Marshall P. Wilder. A very handsome rose with extra-large, full flowers of deep dark red. Sufficient healthy foliage. Growth averages medium, with most bloom in spring, a little in fall, giving a total of about 71. Hardy.

Oakmont. Flowers peach-pink, fragrant, and of good size. Sufficient healthy

foliage. Growth tall. Blooms mostly in spring, with an occasional showing in the fall, a total of about 132. Hardy.

FOREIGN HYBRID PERPETUALS

Frau Karl Druschki. Blooms very large, of excellent form, double; the purest white in existence. Growth strong and vigorous; stems medium to long. Blooms abundantly in spring and if kept growing will give many flowers in autumn. Averages from 50 to 129 blooms per season. Very hardy.

J. B. Clark. Blooms very large and full, intense deep scarlet, shaded with blackish crimson. Rampant grower. At its best when planted in a partially shaded position where only morning and filtered afternoon sun will reach it; in full sun the color bleaches. Averages 80 blooms. Hardy.

John Keynes. Rich dark cherry-red blooms; delightfully fragrant. Foliage sufficient to plentiful. Tall. Averages 64 to 148 blooms per season. Hardy.

Magna Charta. Flowers rosy pink in color; very fragrant. Foliage sufficient. Growth tall. Abundant bloomer, averaging 50 per season. Hardy.

Mme. Gabriel Luizet. Blooms silvery pink, full and fragrant. Growth medium to tall. Foliage plentiful. Averages 50 to 141 blooms a season. Hardy.

Mrs. John Laing. Long buds; extremely large, cup-shaped, fragrant pink flowers. Strong grower; free bloomer, averaging 50 blooms. Hardy.

Ulrich Brunner. Extra-large flowers of light red, bordering on scarlet or crimson. Foliage plentiful. A very vigorous grower. Not quite so free in bloom—about 30 blooms per season, on long stems. Hardy.

Hybrid Teas, Teas, and Tea-Polyanthas.—Of these the Teas are tender, though with slight protection and planting in sheltered locations, such as the south side of a house or fence, they will live and thrive here. The Tea-Polyanthas combine the fragrance, color, size, and everblooming qualities of the Teas with the hardiness, vigor, and cluster-forming qualities of the Multifloras or Polyanthas.

Wherever directions are given to prune to a definite number of eyes, this is for the production of quality flowers, and the number of blooms given per season are the result of such pruning, except when no directions are given.

AMERICAN HYBRID TEAS

Cardinal.† Flowers cardinal-red—color blues; form fair; fragrance good and enduring. Foliage susceptible to mildew and spot. Growth bushy but not tall; average stem. Averages 48 blooms per season. Prune to 5 eyes. Hardy.

*General MacArthur.** Bright crimson blooms, tending to blue; fragrance strong and enduring; buds attractive. Foliage sufficient, slightly susceptible to spot. Of average growth; fair stem; poor grower on own roots. Steady bloomer, but shy, totaling about 35 flowers in season. Prune to 5 eyes. Hardy.

Isabella Sprunt.‡ (Tea.) Pale yellow flowers, large to medium in size.

*Budded or grafted

†Budded or grafted, and own root.

‡Own root. I found that the own-root roses were most satisfactory.

Foliage sufficient, healthy. Growth vigorous; needs a southern exposure. Gives about 104 blooms per season. Fairly hardy. Scored 94 points by judges of American Rose Society as grown in Arlington Rose-Test Garden in 1919.

Killarney Queen.† Medium to large blooms of good form, lasting fairly well; color bright pink. Fair foliage. Growth vigorous; long stems. Gives 30 to 40 blooms per season under favorable conditions. Prune to 5 eyes. Hardy.

Mrs. Charles J. Bell.† A lovely shade of soft or shell-pink on salmon background; beautiful in bud or open flower. Fine foliage. Growth of the best. Continually in flower. Averages 45 blooms per season. Prune to 6 eyes. Hardy.

Panama.† Large, globular blooms of dainty peach-pink, inside of petals creamy white. Foliage sufficient, healthy. Medium height. Averages 42 blooms per season. Hardy.

Pink Soupert.† Blooms medium to large for the class, cup form, clear bright pink; strong, enduring fragrance. Foliage good and plentiful. Growth vigorous; bushy; stems short to medium. Constantly in bloom, averaging 174 to 200 blooms per season. Hardy.

Radiance.† Blooms medium to large, light silvery flesh, outside of petals salmon-pink—color blues slightly; fragrance fair to strong. Lasts well in color, fragrance, and form. Foliage slightly subject to mildew and spot. Very strong growth and long stems; slightly weak in the neck. Gives an average of 51 blooms per season when pruned to 6 eyes. Hardy. Scored 95 points in 1919.

Red Radiance.† (A. N. Pierson, Inc., 1916.) Clear rich red.

Red Radiance.† H.T. (Gude Bros., 1916.) A dark, rich red, darker than Pierson's. Both sports from Radiance. Large to extra-large flowers; quite fragrant; fine form; lasting about five days. Foliage fine, sufficient. Growth vigorous, bushy; medium to long stems, stronger than Radiance. Free-blooming, average 45 blooms when pruned to 6 eyes. Hardy. Given 97 points in 1919.

Robin Hood.† Flowers soft rosy scarlet, changing to scarlet-crimson as the season advances; fragrance above the average; of average size. Foliage especially good. Very good growth; stem long. About 42 blooms, pruned to 5 eyes. Hardy.

Souvenir of Wootton.† The first Hybrid Tea raised in the United States. Cup-shaped, double flowers of a rosy crimson; very fragrant. Fine healthy foliage. Strong grower. Gives 34 blooms per season. Hardy.

Wellesley.† H.T. Flowers silvery pink, resembling the color of La France, but has better blooming qualities and longer life of plant. Foliage sufficient. Growth medium to tall. Averages 40 blooms per season. Hardy.

White Killarney.† Sport of Killarney. Flowers more double than those of Killarney and pure waxy white. Foliage sufficient to plentiful, subject, however, to mildew. Growth medium. Averages 42 blooms per season. Hardy.

Wm. R. Smith.† Blooms medium to large, full, of excellent form, lasting five to seven days; color silvery white, shaded peach-pink; strong enduring fragrance. Excellent foliage, holding well. Vigorous, spreading growth; stems long, fine for cutting. Averages 36 blooms per season. Very fine autumn bloomer. Hardy.

FOREIGN HYBRID TEAS

Gruss an Teplitz.† One of the best garden roses. Flowers below medium in size, dazzling crimson-scarlet. Strong grower. Gives many flowers over a long period; averages 170 blooms per season. Fine for massing and hedges. Hardy.

*Herzog Friedrich II von Anhalt.** Large fine flowers of a pale rosy carmine with silvery reflections; fragrant. Fine foliage. Good grower. Averages 30 blooms per season. Hardy.

Kaiserin Auguste Victoria.† An old and general favorite. Medium to large, full, globular blooms of white, shading to creamy yellow in the center. Strong grower; better budded. Averages 14 to 25 blooms per season. Hardy.

Lady Alice Stanley.† Large, full flowers of fine form; coral-rose and pink. Good foliage. Medium grower. Averages 34 blooms per season. Hardy.

Lady Ashdown.† Flowers large, globular, well formed; pale carmine-pink. Good foliage. Medium grower. Averages 40 blooms per season. Hardy.

Lady Hillingdon.† (Tea.) Flowers medium to large, semi-double, but beautiful in bud and open flower; deep apricot-yellow—color variable. Fine leathery foliage. Medium strong, spreading growth. Averages 50 blooms per season. Hardy.

Lady Ursula.† A handsome rose of fine fragrance; blooms of fine substance, smooth flesh-pink. Foliage sufficient. Averages 45 to 99 blooms per season. Thrives best in soil inclined to dryness. Hardy.

La Tosca.† Blooms fairly double, large, soft pink, shading to rose. Fine foliage. Strong, vigorous grower. Gives about 45 blooms per season. Hardy.

Laurent Carle.† Flowers large and of fine form; brilliant velvety carmine; very fragrant. Fine foliage. Good grower. About 40 blooms per season. Hardy.

Mary, Countess of Ilchester.† Extra large, warm crimson-carmine flowers, with large, smooth, circular petals; fine perfume. Sufficient foliage. Strong grower. Gives from 41 to 77 blooms per season. Hardy.

Mlle. Franziska Kruger.† (Tea.) Deeply shaded coppery yellow blooms—color varies. Sufficient foliage of a leathery texture. Low to medium height, spreading. Averages 25 to 54 blooms per season. Hardy.

Mrs. A. R. Waddell.† Semi-double, soft rosy salmon flowers, suffused with a golden sheen. Good foliage. Medium height; poor grower and bloomer when budded. Gives from 31 to 62 blooms per season. Hardy.

Mrs. Wakefield Christie-Miller.† Extra-large flowers of blush, shaded salmon. Good foliage. Strong grower, good bedder. Gives 28 to 57 blooms per season. Hardy.

Ophelia.† Medium to large blooms of extra-fine form, on long stems; salmon-flesh, shading to rose and to a yellow base—more yellow in cool weather. Fine foliage. Strong grower. Produces an average of 30 blooms a season. Hardy.

Souvenir de Pierre Notting. (Tea.) Large, finely formed buds and flowers of apricot-yellow, blended with coppery yellow and rose. Good foliage. Strong, bushy grower. Averages 50 blooms per season. Hardy.

Climbing Roses—Hybrid Multiflora, Hybrid Wichuraiana, and Climbing Hybrid Tea.—Hybrid Multifloras are seedlings of crosses between the original Multiflora and other types of roses, combining the rampant, climbing habit and cluster-forming tendencies of the Multiflora with the fragrance, color, or free-blooming qualities of the other parent. This same holds true for seedlings of crosses between the original Wichuraiana and other roses. However, many of the latter are also suitable for trailing purposes and nearly all have beautiful glossy foliage. The Climbing Hybrid Teas are mostly extra-vigorous sports of certain bush roses. These do not grow as rampant as the other two classes and are mostly used for covering pillars.

AMERICAN CLIMBING ROSES

American Pillar. H. Mult. Large clusters of very large, single, dark pink flowers with white center and yellow stamens. Foliage lasts well. Very vigorous climber; best as a pillar rose or for fences and walls. Hardy.

Bess Lovett. H.W. Flowers medium to large, clear bright red, full, of fine form, lasting well; very fragrant. Glossy foliage, like that of Silver Moon. A vigorous grower and free bloomer. Hardy. Scored 93 points in 1919.

Christine Wright. H.W. Bud perfect; flowers large, double, of good form, coming singly and in clusters; color a wild-rose pink. Foliage lasts well. Blooms best in spring; a few flowers in autumn. Suitable for fences. Hardy.

Climbing Wootton. Cl. H.T. Flowers rosy crimson, full, cup-shaped, fair to good form; strong, enduring fragrance. The medium to large flowers come singly and in small clusters and last three to four days. Fine foliage. Very vigorous grower. Averages 300 to 500 blooms per season; most in spring, a few in summer and autumn. Suitable for arches and pillars. Very hardy.

Dr. W. Van Fleet. H.W. Flowers soft flesh, shading to delicate peach-pink, and borne on long stems. Foliage very good and lasts well. Very vigorous grower; blooms well in spring and thereafter scattering ones. Suitable for arches, pergolas, summer-houses, fences, etc. Hardy.

Excelsa. H.W. The best red climber of its class. Flowers in trusses, double, brilliant scarlet-crimson. Glossy green, healthy foliage. Awarded Hubbard Gold Medal in 1914. Fine for fences, walls, arches, pergolas, etc. Hardy.

Gardenia. H.W. Finely formed, rich yellow buds, opening into medium to large, double gardenia-like flowers of creamy white, borne singly or in clusters and lasting well; quite fragrant. Foliage excellent and plentiful, nearly evergreen. Very vigorous climber if trained, as it has a tendency to trail; rampant, bushy growth; medium to long stems; profuse bloomer. Best for walls, fences, and banks. Hardy.

Mary Lovett. H.W. Often termed White Dr. Van Fleet and identical with that variety except in color, which is pure, waxy white.

Silver Moon. H.W. Large, single, silvery white flowers with golden yellow stamens. Foliage rich and glossy, lasting well. Very strong grower; free-blooming; very distinct. Fine for fences, pergolas, arches, etc. Hardy.

ONE FOREIGN CLIMBER

Tausendschön. H. Mult. Differs from every other rose because the enormous clusters of large, double flowers vary in color from pink to white, the buds on first opening being a light cherry-pink, changing, when fully open, to a delightful rosy carmine, and then fading to white. At blooming-time the mass of flowers nearly hides the foliage. Strong, vigorous grower, almost thornless. Fine for fences, pergolas, arches, etc. Hardy.

BETTER ROSE DESCRIPTIONS

Many complaints are made of the flamboyant descriptions of roses found in some catalogues, long on adjectives and short on information! Mr. Gersdorff's descriptions above tell what you want to know. The Editor wants other honest descriptions.

Ohio and the Rose-Zone Map

By G. A. STEVENS, Cleveland, Ohio

EDITOR'S NOTE.—This account of rose experience is candid and open, and of the sort tending to be most helpful to the amateur rose-grower. Mr. Stevens' theory as to the reason for the lack of hardiness in own-root roses in his planting of them seems logical. It is known that constant growth and the absence of the dormant condition debilitates some plants. Dr. F. W. Coville, the United States botanist in the Bureau of Plant Industry, has recently published a careful study upon "The Influence of Cold in Stimulating the Growth of Plants," which bears upon the subject.

I WAS rather sorry to see that the Rose Map confirmed my worst suspicions. The intersection of a line drawn west from Pittsburgh with one drawn south from Cleveland, indicates very closely the district in which I have attempted to grow roses. I have known for a long time that the climate was not the best in the world for them, but I had no idea that it was in the same class with the Dakotas and Ontario.

Be that as it may, it is a fact that most of the roses presumably hardy in the latitude of New York are not dependably so with me. In fact, I can name very few Hybrid Perpetuals or Hybrid Teas which I can rely upon absolutely to come through the winter in good blooming condition, even with full protection. This spring (1920) nearly all my Hybrid Teas and Hybrid Perpetuals are completely frozen to the ground, and I fully expect to find that half of them are killed outright, for as yet (May 20) there is no sign of growth from below the surface.

The lists on pages 97 and 98, which I made up from the card index of all the roses in my garden last summer, show the effects of the past severe winter. I have endeavored to indicate somewhat the general location of the plant under consideration, whether in an exposed or sheltered situation, as well as the relative amount of protection given for the winter. Where possible, I have stated the actual length of the canes living this spring, but where they are frozen to the soil, I have used the word "Ground."

In addition to the roses listed, the following species are perfectly hardy without protection: Multiflora, Wichuraiana, Setigera; our native rose, which I think is Humilis; Manetti, Canina, Spinosissima, and Spinosissima altaica. The old-fash-

ioned roses also are hardy, meaning such varieties as Harison's Yellow, Persian Yellow, a nearly single large white rose, which I think is a form of *Rosa alba*; the Moss roses, several varieties of Cabbage roses, and also a very common, tall-growing, almost spineless rose with reddish stems and leaves covered with a bluish bloom somewhat like a raspberry cane, which flowers very early, before Harison's Yellow, in long wreaths of dark red blooms which quickly turn purple. The flowers are small, fragrant, and semi-double. I have never been able to name it. It is simply called the red rose throughout the country.

I realize that my garden is exposed to the winds from the west, and that it is subject to much heavier and later frosts than the surrounding hills, nevertheless, I still feel that real hardiness will not be attained in roses until they come through the winter as unscathed as the common lilac does.

OWN-ROOT vs. BUDDED ROSES

Many roses, Teas, Hybrid Teas, and Hybrid Perpetuals, as well as climbers, are omitted from the lists because they all died in the winters previous to 1919. These were all own-root, greenhouse-grown plants, a fact which compels me to add my contribution to the old own-root vs. budded controversy.

My first roses, that is, outside of the good old-fashioned roses which I have known and grown ever since I can remember anything, were greenhouse grown, own-root plants. These were set out in 1906 or 1907. All of them, except one American Beauty and one Gen. Jacqueminot, perished the first winter, and the General gave up the ghost in the second. The American Beauty still flourishes greatly—perhaps because it has the advantage of the most sheltered situation on the place.

For some five or six years I contented myself with one- or two-year roses of this type, knowing of no other, and regularly lost the whole lot each winter, with the exception of one Boule de Neige which lived three years.

In the spring of 1917, I began with a few dozen plants of budded two-year-olds. With the exception of the Duchess of Wellington, which I have never been able to get to grow, either budded or on its own roots, all these plants are living yet, and have bloomed beautifully for three years.

At the same time, I set out a dozen two-year-old greenhouse-grown own-root roses of the same varieties, and gave them the advantage of position, if anything. Of these, I have one survivor, *La France*, a huge bush six feet high which blooms but sparingly. All the others perished the first winter. I also set out two hundred own-root plants of other varieties, half of which were Hybrid Perpetuals, and by coddling I have managed to retain a half dozen or so. In 1918, about two hundred more of the same type were set out. They are all dead. In 1919, about fifty were planted, none of which are alive this spring (1920.)

Strange to say, the lists at first glance would indicate that the own-root roses were the hardiest, as they all have more living wood this spring than the budded roses, but, considering that they are the only survivors of more than five hundred of their kind, and that they have been very carefully protected for several winters and have had ample time to become thoroughly established, the record for own-root roses is poor. All own-root roses, in my experience, are more tender than the same varieties on other stocks.

In explanation of this phenomenon, I am inclined to believe that the own-root greenhouse-grown roses, descended as they are from a long line of mother plants which have never grown in any environment other than the greenhouse, are tender because the hardiness and the vigor the variety possessed when originated have deteriorated and degenerated under the influence of artificial and debilitating surroundings. On the other hand, roses budded in the field from plants that have grown always out-of-doors from generation to generation, have the benefit of natural selection, as only the hardier ones live on from year to year to become parent plants.

I have never seen the logic of an essential difference in the hardiness of root and branch in the same rose, and I have often observed that own-root roses were still sound at the root when entirely dead above the ground; even if they later did fail to grow. Therefore, I do not blame the own-root for the lack of hardiness, but the lack of vigor and resistance of the plant inherited from numerous greenhouse-grown progenitors.

I have emphasized hardiness rather than blooming qualities in this old argument, because in this climate hardiness is the

essential quality. It is possible that own-root roses when well established would bloom as well as the budded roses, but I have never been able to make a comparative test, because the own-root roses invariably winter-kill before reaching a stage of development equal to the budded roses when they are set out.

However, until the last year, the own-root roses were so cheap that, although I knew it was foolish, I have never been able to resist buying a bunch of them every spring, and in that way have familiarized myself with a great many more varieties of roses than I might otherwise have done.

Comparative Hardiness of Roses HYBRID TEAS

NAME	Stock	Situation	Protection	Year Planted	Condition May, 1920	Bloom 1919
Antoine Rivoire	Budded	Sheltered	Light	1917	*Ground	Good
Betty	Budded	Sheltered	Light	1917	Ground	Good
Chateau de Clos Vougeot	Budded	Exposed	Light	1918	3 inches	Fair
Duchess of Albany	O. R.	Exposed	Heavy	1918	Dead	Poor
Duchess of Wellington	Budded	Sheltered	Light	1919	Dead	Poor
Ellen Willmott	Budded	Exposed	Light	1919	Ground	Poor
George C. Waud	Budded	Sheltered	Light	1918	Dead	Poor
Gruss an Teplitz	Budded	Exposed	None	1917	24 inches	Fine
Gruss an Teplitz	O. R.	Sheltered	Light	1917	2 inches	Fair
Harry Kirk	Budded	Sheltered	Light	1917	Ground	Good
J. F. Barry	Budded	Sheltered	Light	1919	Dead	Fair
Jonkheer J. L. Mock	Budded	Sheltered	Light	1917	Dead	Poor
Kaiserin Auguste Victoria	Budded	Sheltered	Light	1917	Ground	Fair
Killarney	Budded	Exposed	Light	1917	2 inches	Fine
Lady Alice Stanley	Budded	Sheltered	Light	1917	Ground	Fine
Lady Ashtown	Budded	Sheltered	Light	1917	8 inches	Fine
Lady Ursula	Budded	Exposed	None	1919	3 inches	Fine
La France	O. R.	Sheltered	None	1917	48 inches	None
Laurent Carle	Budded	Sheltered	Light	1917	Ground	Few
Los Angeles	Budded	Sheltered	Light	1918	Dead	Few
Lyon	Budded	Sheltered	Light	1918	Dead	Few
Mary, Countess of Ilchester	O. R.	Exposed	Heavy	1918	Dead	None
Mlle. Franzisca Kruger	O. R.	Exposed	Heavy	1917	Dead	Fine
Mme. Caroline Testout	Budded	Sheltered	Light	1917	6 inches	Good
Mme. Edouard Herriot	Budded	Exposed	Light	1918	Dead	Good
Mme. Jules Bouché	Budded	Exposed	Light	1919	Ground	Fair
Mme. Leon Pain	Budded	Sheltered	Light	1917	3 inches	Fine
Mme. Marcel Delanney	Budded	Exposed	Light	1919	Ground	Fair
Mme. Ravary	Budded	Sheltered	Light	1917	Ground	Fine
Mme. Segond-Weber	Budded	Exposed	Light	1919	Ground	Good
Mrs. Aaron Ward	Budded	Sheltered	Light	1917	Ground	Fine
Mrs. Aaron Ward	Budded	Exposed	Light	1919	Ground	Good
Mrs. A. R. Waddell	Budded	Sheltered	Light	1917	2 inches	Fine
Mrs. Wakefield Christie-Miller	Budded	Exposed	Light	1919	2 inches	Fine
Ophelia	Budded	Sheltered	Light	1917	Ground	Fair
Radiance	Budded	Sheltered	Light	1918	Ground	Fine
Rayon d'Or	Budded	Exposed	Light	1918	Dead	Poor
Red Radiance	Budded	Exposed	Light	1919	Ground	Poor
Sunburst	Budded	Exposed	Light	1918	Ground	Poor
Viscountess Enfield	Budded	Exposed	Light	1919	Ground	Fine
Willowmere	Budded	Exposed	Light	1918	12 inches	Fine

*As explained in the text, this word denotes the freezing of the plant to the ground.

HYBRID PERPETUALS

NAME	Stock	Situation	Protection	Year Planted	Condition May, 1920	Bloom 1919
American Beauty	O. R.	Sheltered	None	1907	3 feet	Profuse
Anna de Diesbach	O. R.	Exposed	Slight	1917	1 foot	Fair
Baroness Rothschild	Budded	Exposed	Light	1919	2 inches	Good
Beaute de Lyon	Budded	Exposed	Heavy	1918	1 inch	Good
Captain Hayward	Budded	Exposed	Light	1919	4 inches	Good
Charles Lefebvre	O. R.	Exposed	Light	1918	2 inches	Poor
Frau Karl Druschki	O. R.	Exposed	Light	1917	2 inches	Fine
Geant des Batailles	O. R.	Exposed	Light	1917	12 inches	Good
Gen. Jacqueminot	Budded	Exposed	Light	1919	1 inch	Good
George Arends	Budded	Exposed	Light	1919	1 inch	Good
George Dickson	Budded	Exposed	Light	1917	3 inches	Good
J. B. Clark	Budded	Exposed	Light	1919	Dead	None
Juliet	Budded	Exposed	Light	1918	1 inch	Fair
La Reine	O. R.	Exposed	Light	1917	12 inches	Fine
Magna Charta	O. R.	Exposed	Light	1917	24 inches	Fine
Mme. Gabriel Luizet	Budded	Exposed	Light	1919	1 inch	Fine
Mrs. John Laing	Budded	Exposed	Light	1919	6 inches	Good
Mrs. John Laing (*Standard)	Budded	Sheltered	None	1919	Perfect	Fine
Soleil d'Or	Budded	Exposed	Light	1918	Dead	Poor
Ulrich Brunner	Budded	Exposed	Light	1919	3 inches	Fine
Victor Verdier	O. R.	Exposed	Light	1917	12 inches	Fine

*A 3-foot standard.

CLIMBERS

NAME	Stock	Situation	Protection	Year Planted	Condition May, 1920	Bloom 1919
Baltimore Belle	O. R.	Exposed	None	1919	Perfect	None
Christine Wright No. 1	O. R.	Exposed	Heavy	1918*	Good	Good
Christine Wright No. 2	Budded	Sheltered	Light	1918	Good	Good
Climbing American Beauty	O. R.	Exposed	Heavy	1918*	Poor	Fair
Dr. W. Van Fleet	O. R.	Sheltered	Light	1917	Poor	Fine
Dorothy Perkins	O. R.	Exposed	None	1919	Perfect	None
Excelsa	O. R.	Exposed	None	1917	Half dead	Fine
Hiawatha	O. R.	Exposed	None	1918	Perfect	Few
Jersey Beauty	O. R.	Exposed	None	1919	Dead	Few
Lady Godiva	O. R.	Sheltered	None	1917	Perfect	Fine
Tausendschön	O. R.	Exposed	None	1917	Good	Good
Veilchenblau	O. R.	Sheltered	None	1917	Good	Fair
White Dorothy	O. R.	Exposed	None	1917	Good	Fine
Wm. K. Harris	O. R.	Sheltered	None	1917	Good	Fine

*Moved in fall, 1919.

OTHER ROSES, SPECIES, ETC.

NAME	Stock	Situation	Protection	Year Planted	Condition May, 1920	Bloom 1919
Rosa rugosa	O. R.	Exposed	None	1919	Perfect	Good
Agnes Emily Carman	Budded	Exposed	None	1919	Perfect	Good
Belle Poitevine	Budded	Exposed	None	1919	Perfect	Good
Blanc Double de Coubert	Budded	Exposed	None	1919	Perfect	Good
Conrad F. Meyer	Budded	Exposed	None	1919	Half dead	None
Rosa rubiginosa	Budded	Exposed	None	1919	Perfect	None
Lord Penzance	Budded	Exposed	None	1919	Poor	None
Meg Merrillies	Budded	Exposed	None	1919	Perfect	None

How To Make Roses Grow

AN EDITORIAL INQUIRY

UNIVERSAL as is the rose, it does not succeed everywhere with the uniformity of certain other universal plants, such as the goldenrod, the blackberry, or the burdock. It is a gift of God which must be nurtured, cultivated, cherished, if it is to smile on the worker at its best.

Constantly, therefore, the inquiry comes as to how rose prosperity may be assured. To write a universal prescription is easier than to be assured that it is the right prescription. It is believed that roses will grow anywhere in arable soil with effort enough, but that effort needs to be suited to the locality, the soil, and the aims in mind. It was with this general thought in view that the Editor asked various successful rose-growers to tell how it has been done. Brief extracts from their replies follow.

A rose friend in eastern Pennsylvania, Mr. George Christine, of Allentown, set out his view as follows:

My rose-bed has a northern exposure, with sunshine all day. In this community frost 12 inches deep is common, but rarely 30 inches. In forming my rose-bed, which is a rectangle of 5 by 10 feet, I excavated to about 30 inches in depth. With a wheelbarrow I hauled the soil from a nearby forest—leaf-mould, which is pure humus, and about one-fourth of subsoil. I added to each barrow-load half a bushel of air-slaked lime, and then thoroughly mixed it with the humus and the subsoil. The only fertilizer I use is the liquid obtained by soaking fresh cow-manure in water. A pint of this plant-food, once a week is sufficient for the average stalk.

For winter protection I bank the stalks 12 inches high with the bed soil, and then when the ground is frozen I cover the whole bed with a liberal amount of horse manure. I grow my roses by two methods—the low bud and the own-root. Both succeed equally and very satisfactorily.

You can make hens lay and cows give milk and rose bushes bloom, but I will whisper in your ears, Mr. Editor, that in order to do so you must be "Johnny-on-the-spot" every time.

One of the most energetic and helpful friends of the American Rose Society is Miss Carrie Harrison, a worker in the Committee on Membership, who makes roses grow at her home in Brookland, Washington, D. C. Her prescription follows:

Some ten years ago I was in Hammerfest, Norway, for some days. One of the most attractive things there was the window-boxes, glorious in color and foliage. I passed a house where a woman was watering her treasures. I lifted the knocker and when she responded I asked her how in this farthest north did she produce such blooms. She invited me in and said in untranslatable Nor-

wegian: "I just love them up." An intelligent, tender, sympathetic love will make roses grow in any soil, in any locality, and in any climate.

In Brookland, D. C., I have a hillside of heavy clay facing north. For my rose-beds I dug trenches 3 feet wide and 30 inches deep. I wheeled the clay away to fill a hole. I then put in cinders, bones, all I could get, begging all the neighbors had. Next I bought the best dirt I could at \$2 a load to fill the trenches. I bought the best and most scientifically named roses I could find.

If I went for a walk or a visit I took my brains with me and some small bags in my knitting kit. I always secured something to present to the roses as food when I came back.

When people tell me they can't grow roses but they just adore them, I am reminded of a man who wrote to ask us if it were true that some people are poison to plants! Yes, it is true; and if a rose bush is not loved it will die.

Through Miss Harrison's kindness, Dr. S. L. Jodidi, Organic Chemist in the office of Plant Physiological and Fermentation Investigations, Bureau of Plant Industry, United States Department of Agriculture, provides an important statement with respect to the soil-treatment which will make roses grow:

The rose, which produces in quantity a wonderful variety of colors and aromas more beautiful and pleasant than any other known flower, and adds so much to our enjoyment, certainly deserves to be treated fairly and squarely. In return for the beautiful flowers it so bountifully showers upon us, it ought to be given all the plant-food it possibly can take care of. The question naturally arises: What should we do in order to meet this requirement? "Add humus to the rose-bed," is our advice, except for peat soils.

While a clayey soil is naturally richer in plant-food than a sandy soil, neither does full justice to the rose. The former must be improved physically to permit of better aeration, drainage, and the like; the latter chemically, by the addition of nutritive elements. Both objects may best be attained by adding very late in the fall or early winter, as soon as the flowers become dormant, some manure to the rose-bed and mixing it with the soil, by careful spading, early in the spring. This simple treatment will improve the texture of the clayey soil, render it more friable, and make it richer in nitrogen and potash, and the like, while the particles of the sandy soil will be made coherent by the humus added, as well as prevent erosion and washing away of the soil, to say nothing of the nitrogen, phosphorus, lime, and the other elements with which it will be enriched by manuring.

When manure is not obtainable, the addition to the soil of wood ashes, or even of fine sifted ashes from our furnaces (both of which contain some potash, lime, and phosphorus) will do some good. However, whenever possible the treatment of the rose-bed with manure, once a year as indicated, will not fail to bring excellent results.

Easily the dean of rose-growers in Pennsylvania, and indeed in the Middle States, Dr. Robert Huey writes from the standpoint of a lifetime's experience with his hints on soil preparation:

A bed 2 feet in depth and 3 feet in width for Hybrid Teas, and 4 feet for Hybrid Perpetuals, if well made, is satisfactory. This will accommodate a double row, which is best "staggered."

Drainage is most important. If the soil is naturally porous and drains freely,

that is sufficient, but unless this is the case artificial drainage must be resorted to; in extreme cases tile drainage is necessary. A most successful rose-bed was made by Mr. Edwin M. Rosenbluth of Wallingford, Pa., on a layer of hardpan several feet thick by exploding small dynamite cartridges beneath the layer through holes made by a crowbar at intervals of 4 feet. The drainage which had been absolutely *nil* became and remained perfect.

The rose is a greedy feeder and must be supplied liberally. Cow-manure is universally recognized to be the best food, but in the vicinity of large cities the supply is not equal to the demand, and that which can be procured is usually of inferior quality, because it is commonly exposed to the weather and so leached out by the rain and sun.

The late Mr. Heacock, of Wyncote, Pa., whose roses excited the wonder and admiration of all at a New York show, was unable to produce sufficient good cow-manure for his purposes, so established a dairy farm, from whence he had an adequate supply of a quality unsurpassed. By this aid he deservedly won the first prizes and an additional gold medal for excellence. Success in growing roses will depend largely on the quality and quantity of the fertilizer used.

The soil for a rose-bed should be a heavy loam, containing some clay, especially if the plants are budded on Canina stock. If the soil at hand is not sufficiently heavy, it will pay to bring clay from any reasonable distance.

The lower half of the bed may be filled with the best of the subsoil, enriched with one part of manure to three of subsoil and thoroughly mixed; then a layer of chopped sod and finally finished with good top soil and manure in the same proportions.

When the bed has settled the surface should be at least an inch below the adjacent ground in order to conserve the rainfall and prevent washing.

Shortly after this Annual reaches the members of the American Rose Society, Mr. W. C. Egan, of Highland Park, Ills., will celebrate his eightieth birthday. His garden is not an easy place for roses. He makes them succeed because he loves them and studies their needs. He has always to face the bitter winds from off Lake Michigan. His helpful contribution follows:

My soil is a yellow clay loam, an ideal one for roses and for most plants. The main source for food is in the clay portion, which predominates, but it needs working and the addition of humus in order to liberate the food contents. Barnyard manure is the best for this purpose, especially when preparing the bed. The general opinion is that cow-manure is the best, and it may be for sandy soils, but I can see no difference in the results obtained here whichever one is used. I asked an old Scotch gardener once what the secret was in growing roses, and he replied, "Dig deep and manure well."

I like to make the bed in the fall and manure it well. My soil is well tile-drained and of good depth so that if I work it for a distance of 2 to 2½ feet I am going deep enough. The soil to this depth is thrown out and after the bottom is loosened up with a grub hoe a layer of *fresh* manure 8 to 10 inches deep is placed in the bottom and well tramped down. This finally settles down to a few inches thick and is well rolled before the roots of newly planted roses call on it for food, and being fresh, contains juices that drain down into the soil below and fertilize it. Over this I place about 6 inches of soil, then a few inches of *old* manure, and again 6 inches of soil and so on until the bed is some 6 inches high above the surrounding soil. This mixture is then thoroughly forked over to a depth of

18 inches, which completely incorporates the manure and soil. This is the soil the newly planted roots will come in contact with, and by spring it will be in admirable condition to receive them. They do not require any more stimulants until one year after planting. During the summer the surface of the bed is kept free from weeds and lightly cultivated, especially after rains or watering.

The following spring, and each spring afterward, I take the soil from around the base of the plant deep enough to get below the graft, remove any suckers found below the union, sprinkle a good-sized handful of bone-meal over the hole, and then fill back the soil.

After the full June bloom is over, I thoroughly cultivate the whole bed and scatter bone-meal or shredded manure over it, scratching it in. Then I cover the bed some 3 to 4 inches deep with spent manure—manure that has done duty the previous winter covering perennials. To insure neatness in appearance, I run the manure through a coarse screen, eliminating coarse straw. There is value in spent manure as a mulch for while roses like the sun, they do not like it beating down on their roots. The mulch keeps the soil cool and prevents it from baking. Lawn grass clippings will do, but when saving these until wanted, do not pile them thickly, or they will ferment and become a useless mass.

When in full bud, I give all but those recently planted a dose of manure-water, first watering them with the hose and repeating every two weeks until about the middle of September. Manure water is easily made by taking a barrel with its head made into a removable cover. Insert a molasses spigot near the bottom of the barrel and fill a grain sack with manure, tying it tight at the top, make a stool or rack about 10 inches high and place it in the bottom of the barrel on which place the bag. The molasses spigot does not clog as the ordinary ones generally do. Dilute the juices as drawn from the tub with water until the mixture is the color of weak tea.

St. Catharines, Ontario, is a fine little community almost within sound of the great cataract at Niagara Falls. It has a live horticultural society, and its rose shows every year are a joy. It has also a very live citizen in Hon. W. B. Burgoyne, who is always editor of the *St. Catharines Standard*, usually president of the St. Catharines Horticultural Society, and once, at least, has been mayor of the town. He has done his town a great service in giving it a Civic Rose-Garden, which was established in 1919 in Montebello Park, and which he has, since its origination, supported by further additions and helpful contributions. A picture of the condition in 1920 of this garden appears in Plate XIII, facing page 117, of this Annual. Mr. Burgoyne's work goes far beyond the mere paying of money, for he loves roses and works with them. His contribution to this symposium tells of the effort to get the very best results in the Civic Rose-Garden at St. Catharines:

May I make a paragraph with reference to the Civic Rose-Garden? Montebello Park, in which the garden is planted, is on the line of a high gravel ridge running through the city. The gravel was excavated to a depth of a couple of

feet and clay substituted therefor—a clay said to be well suited for roses, not of the blue variety. In the fall they were well mulched with manure, and last year (the second after planting) finer roses could not be grown out-of-doors than bloomed in this garden. In my own garden the soil also was very light, and early in December last I had the plants all taken up, the light soil excavated and 6 inches of clay put in the beds and then filled with the soil in which the bushes had been growing for years. After replanting I had the beds covered with a good quantity of well-rotted cow-manure and a thick coating of leaves.

One of the livest rose societies in the United States is the Auburn Rose Society, of Auburn, N. Y. Its honorary president is Mr. David M. Dunning, and he is a rose-man who works at his hobby successfully and continuously. The results he gets may be noted on Plate XII, facing page 118. Mr. Dunning provides the following succinct hints:

Rosarians are born, not made. Unless one has an unquenchable latent desire to succeed with roses, a desire that becomes irresistible when once aroused, he will not succeed. There is nothing so potent to awaken this desire as an exhibition of roses; next comes the various publications and illustrations on rose-culture; next a healthy body and an active mind.

The successful rose-grower knows the names of every one of his roses, gives them each an intimate personality, and loves to converse with them and call them by name, when cultivating, pruning, and caring for them.

Whenever you see beautiful roses you may know that there is at least one true rose-lover there. It may be the owner, or it may be the gardener, or it may be some member of the family, but there must be one true rose-lover there or they will not thrive, for money alone will not do it.

Finally, feed—*feed*—FEED, and then some more feed just for good measure.

Another member of the Auburn Rose Society is Miss Matilda Jacobs. She tells how and why she succeeds in a cold and difficult climate, as follows:

We are three miles east of Cayuga Lake, with sandy loam and 20 feet down to a rock bottom. My small rose-garden of about forty roses was dug about 2½ feet deep, stones and sods in the bottom, filling up with earth taken out. I get roses from the best places, and plant according to their directions, trimming as they advise. When growing well, I water the roots with a quart of liquid cow-manure to each plant once a week. If the ground is dry, I water it before putting on the manure-water. At least once in a season, when the soil is not wet, I thoroughly mix in the soil around each plant a half-pint of lime. I keep the ground well raked between and around the plants. In the fall, after hilling up, I fill the trenches with stable manure and in the spring rake the earth back over it. The main thing, however, that makes the roses grow and bear fine roses is that I dust them thoroughly once a week with a fine powder—sulphur, arsenate of lead, and tobacco, using for the purpose a hand-duster gun.

It will be remembered by readers of the 1919 Annual that Mr. George R. Mann, of Little Rock, Ark., wrote entertainingly of "The Making of a Rose Enthusiast and His Garden." Mr.

Mann has had trouble to continue his success, and the way he surmounted his trouble may help someone else:

I have not lost my rose enthusiasm, although it had a most awful wrench during the last two seasons. But it is like the nut grass that grows in my garden; you can discourage it, but you can't kill it.

My roses started going to the bad during the season of 1919, and last year was worse than ever. Last fall I decided that my troubles were caused by the fact that our city water is clarified by the use of sulphate of iron and that my ground had become impregnated with that substance. I suppose you know that this is the material used for killing weeds. So I excavated my beds to the depth of 2 feet, wasting the soil. I found the soil in miserable condition, dead-like and gummy, and the roots of the roses practically all rotted off to stubs.

In making over my beds I found a clay bank of bright yellow clay that had quite a bit of sand mixed with it. (I say yellow clay because an old friend, who has been somewhat of a rose enthusiast for many years, says that the yellow clay grows roses better than the red clays.) I then mixed my soil by using six barrows of the clay, three barrows of thoroughly rotted cow-manure, and two of a material contained in the crevices and cracks along the river, locally known as "buck-shot," which is simply the decomposed vegetable matter, probably mixed with some clay that is left along the river after high water. This substance is black and can be found in the South along any stream that is subject to overflow.

All the above materials were thoroughly incorporated together, well tamped in courses of 6 inches, and in the bottom course I mixed a large pail of lime to each 20 square feet of bed. I have always found that an occasional top dressing of decomposed cow-manure, that had been sprinkled with lime while green, was an advantage. My beds are well drained.

My soil certainly looks as though it would grow anything and the new roses received last fall are growing wonderfully. I anticipate having many flowers this season. I am going to cover my beds with ground peat moss this season and trust to heaven for water, as I certainly shall not use our hydrant water.

Few more discriminating rose-growers live in America than Mrs. Francis King, the President of the Woman's National Farm and Garden Association, whose garden is at Alma, Mich. She tells about it as follows:

The soil and conditions in our part of Michigan greatly favor the growing of hardy roses, I believe. The large rose-garden of Mrs. Edward Lowe, Holmdene, Grand Rapids, has for several years, too, shown what Hybrid Teas can do in our cool summers and cold winters. In my own garden, the soil is a rich loam on clay; it is heavily manured each spring by forking in the foot-high piles of old, well-rotted stable manure with which each plant is supplied in November for winter protection. Hybrid Perpetuals kill back to the tops of these piles; Hybrid Teas much lower. The fact that Los Angeles has lived and done well with me for three years—not wonderfully well, but fairly well—shows that with such care as this, Teas can be used in our latitude. Except for this use of manure and a little bone-meal, when plants are in bud, we do not feed our plants. For an insecticide I believe in nothing so firmly as in X-L-All, a splendid general remedy for every trouble of the rose, except for black-spot; and when that appears we strip and burn the leaves, and turn to a copper solution. Dwarf and climbing ramblers do remarkably well with us, but only as we cover them warmly for winter. No risks are taken by leaving even one of our climbing roses, not even Dr. W. Van

Fleet, upright and exposed to cold; all are taken down, banked around the roots with earth or old manure again, coiled into mounds, covered first with straw and leaves, and then by burlap anchored by bricks. This means work, but when June comes, and, looking at our roses we think of November, we say "That was worth while."

The fortunate possessors of "The Practical Book of Outdoor Rose-Growing," know that its author, Capt. George C. Thomas, Jr., makes roses grow. He did make them grow at his wonderful garden in Chestnut Hill, near Philadelphia, and he is now making them grow yet more pleasingly in his western garden, near Los Angeles, Calif. He writes thus:

First, the grower must secure proper varieties for his climate and conditions: this means tested varieties, not new introductions, especially not untested foreign varieties. It also means the kinds which are grown and grown successfully in the same neighborhood.

Second, with the exception of climbers of robust growth, buy nothing but American, dormant, field-grown, budded roses. Do not buy own-root, pot-grown, or imported plants.

Having secured roses of the above noted description, the matter of the bed is an easy proposition. There are two main things needed in a bed's composition. It must hold sufficient moisture to keep from drying out in summer, and it must drain so that it will not become water-logged in wet weather. The man with the sandy or open soil does not need under-drainage, but requires clay to hold moisture; the owner of heavy clay ground needs broken stone at the bottom for drainage and also should add lighter or sandy soil. All beds should be dug out to a depth of 2 feet, and drainage, if required, should be below that depth. All beds should contain, one-third top soil (more if possible), one-third subsoil (less if possible), one-third well-leached out cow-manure (no more, no less).

Inevitably, rose-growing and rose-protection are so related that it is hard to treat the one without discussing the other. This symposium, therefore, fits with another which follows, telling of rose protection.

DO YOUR ROSES GROW?

If they do, "there's a reason!" That reason may help someone else under similar conditions. Let us make rose-growing easy by exchanging ideas, successes, failures. Tell the Editor; he'll tell the rest.

The Rose-Zone Map vs. Rose Protection

ANOTHER EDITORIAL INQUIRY

VERY great interest was aroused by the publication on page 76 of the 1920 Annual of the Rose-Zone Map prepared by the Bureau of Plant Industry of the Department of Agriculture. Much criticism of that map has been made. (It will be reprinted in the 1921 Members' Handbook.)

It should be pointed out that the map was definitely based upon late frosts in the various areas as recorded by the United States Weather Bureau, and that in proposing four zones within which certain roses might be safely grown, it was the assumption that these roses would not require winter protection. For example, in the horizontally-lined region including Florida and the eastern and central South, Tea roses, Noisettes, and similar roses do not require protection. In the dotted region, including the Middle West and the upper South, and parts of the Atlantic seaboard, it was assumed to be safe for Hybrid Teas unprotected in the open, because the last frost usually occurs in April. Similarly, the clear space on the map was regarded as safe for unprotected Rugosas and Hybrid Perpetuals.

Any rose may be grown anywhere in America, probably, with reasonably suitable soil conditions, if the freezing and thawing of the ordinary winter are protected against.

The correspondence, indicating the success in the colder regions of some good rose-growers even with Teas and Hybrid Teas, brought the thought that the members of the American Rose Society would like to know the methods of protection which permit those living in the sub-zero regions to have plenty of Hybrid Tea roses. Inquiry was made, and the result follows.

In the article on "How To Make Roses Grow," reference is made to St. Catharines, Ontario, a few miles from Niagara Falls. While the lake moisture measurably protects this region, yet care must be exercised. Hon. W. B. Burgoyne (see, also, page 102), gives us the method which has permitted him to have Hybrid Teas successfully and regularly:

In answer to your enquiry as to how we winter our Hybrid Tea roses, will say that the general way is to heel up the plants about 6 inches, and fill up the intervening spaces with leaves or manure, some being very careful not to permit

the leaves to adhere closely to the plants. The protection is left on as late as possible, depending upon the season, but is usually removed in April. Our losses are very slight.

The Boston climate is not easy for most of the less hardy roses. Yet success with Hybrid Teas and the modern climbers is, there as elsewhere, simply a matter of care. Mr. Thomas N. Cook, a persistent rosarian, writes as follows:

Roses about Boston are subject to all the vagaries of the New England climate, and have not quite recovered from the winters of 1917-18 and 1919-20, to say nothing of ordinary losses. All of the Hybrid Perpetuals and Hybrid Teas do well with protection—earth banked up 12 to 18 inches; with roughage of straw or evergreen boughs, the ramblers of the Multiflora and Wichuraiana type all do well. Silver Moon must be laid down and covered about Boston, but does not require it in the Cape district.

Own-root plants are good for only one season; those on Manetti will do well for three seasons. The roses budded on the old dog-briar from cuttings, do the best; Rugosa and Multiflora japonica are fair. The Hybrid Perpetuals and Hybrid Teas must be carefully pruned in the early spring, all the small growth cut out, and the strong stems pruned back to two to five eyes.

The cold winds of Lake Michigan not only make success with Hybrid Teas impossible, but require protection for the so-called hardy climbers. No one does the work better than Mr. W. C. Egan, of Highland Park, Ills. He tells how he does it:

It is only within a comparatively recent date that it was known that the Hybrid Tea rose might be successfully grown in this region. The main difficulty has been their habit of bidding you good-bye the first winter after planting. If you treat them right they will remain, and, like your poor relations, be always with you.

About November 10 I cover the bed 8 to 10 inches deep with soil from an unoccupied plot adjoining, and then put on a 2-foot covering of leaves held in place by brush or cornstalks. In the spring they come out smiling and bless you with blooms all summer long.

I have tried all known methods in protecting climbing roses and have settled down to one that has always produced success. They are taken down, bundled, and the tops coiled in so as to take up as little room as possible. When the canes are so stiff that the upper part of the bundles stand too high, I drive a stake into the ground, and putting the top over sideways, tie it to it. Then a knock-down box is placed around them and dry oak leaves—any hardwood tree leaves will do—are put in, covering the rose a foot or more about its top. A slanting water-tight roof is then put on and farewell speeches are in order.

One main feature is the water-tight roof. A leak causing a drip will, if it touches a cane, rot and blacken it. Small holes or cracks in the sides do no harm, for the water entering there runs down the sides and does not reach the rose. I have seen climbers carried safely over some winters by being covered with leaves, which of course became wet, but it was an even wetness, and not in spots.

Reference has been made in the article on "How To Make Roses Grow," to the good work of Mr. D. M. Dunning, of Auburn, N. Y. Through the kindness of Mr. C. G. Adams,

Secretary of the Auburn Rose Society, there has been secured from Mr. Dunning not only an account of how he protects his tender roses, but excellent pictures to show the unique method. These are reproduced in Plate XII, facing page 108. Mr. Dunning's statement follows:

We go over the beds and remove all unnecessary wood, cutting the same as close to the ground as possible and leaving two or three, rarely four, of the best canes. This is for the Hybrid Perpetuals. For the Hybrid Teas, where we have quite a different growth, we remove what we consider the unnecessary wood, retaining only such as will give the best results for the coming season. We then bend them down without cutting back, and fasten them down with stakes. Sometimes the stakes are used X fashion, but more often they have nails driven in near the top to form a hook. We retain these canes full length for two reasons: Because they retain more vitality at full length than when cut back; and because they are much easier to handle for pegging down in that way than they would be in a shorter, stubby form.

These stakes answer a double purpose: First to hold the canes down, and, second, and just as important, to support the burlap covering under a heavy weight of snow. If they are properly placed, especially at the bend of the cane, near the base, they will support any accumulated weight of snow and ice that may form during the winter, as the freezing of the ground holds them very firm.

The third and final act is to cover with burlap which is pegged down with small sharp stakes at the edges. No covering of any kind is used under the burlap, and we prefer not to cover with the burlap until the ground is frozen, the aim being to retain an even cold temperature with a free circulation of air to keep the canes dormant through the winter. An important feature of the burlap is to protect the canes from the winter sun, as sunshine on a frozen cane under zero temperature is almost sure death. With such protection I have wintered my two hundred or more varieties of tender roses, including a number of Tea roses, for the past twenty years with practically no losses.

The burlap is not removed in spring until the frost is out of the ground, so that the stakes are loose, and then it is dried out and with the stakes laid away for another season. The canes are then straightened up and cut back to any desired height. Occasionally a strong, heavy cane is topped off at 4 or 5 or 6 feet to form a tree and the lower buds removed up to the head desired. At times these trees are retained for some years and attain a height, with the side shoots cut back each year, of 8 to 10 feet. We find no trouble in laying them down for the winter by loosening the earth above the base a little, and we protect them from the crushing weight of snow on the burlap by properly staking at the bend.

Cutting back in the spring is important, and should be done early, before the buds start, and, as a rule, the stronger the wood the more is retained. I generally cut back twice. The point is to cut back to a good strong bud so placed as to promote the symmetry and future growth in a proper manner. The first time I cut to where I wish there was a bud. This can be done rapidly, much more so than if one takes time to hunt for a good bud. Then, after the buds start, I cut again to the proper bud. In this way no unsightly stubs are left, and no bud is injured by cutting too close.

Mr. Dunning is able to provide abundant help, and his seven- or eight-foot-high plants reflect not only his own love and



PLATE XII. Method of Protection for Hybrid Tea Roses in the Dunning Garden, Auburn, N. Y.

(Above, the bent-down canes, with stakes; below, burlap covering. See opposite page)

ability but his means of fostering the most luxurious growth. Miss Matilda Jacobs is one of the successful exhibitors at the Auburn rose shows who has a small garden and does all the work herself. As Mr. Adams observes, "What Miss Jacobs produces we can all produce."

From her letters is extracted the information that in addition to making her roses grow abundantly, so that they are full of resisting strength when winter comes, she hills up the ground over the roses completely and then covers them with barnyard manure or refuse and leaves from the garden. The record the Editor has received shows extraordinary results in number of blooms obtained by Miss Jacobs; as, for example, 274 flowers from one plant of Gruss an Teplitz during 1920, 68 from Mrs. A. R. Waddell, 42 from Lady Ursula, 47 from Radiance, 64 from Pink Killarney; and 65 from White Killarney.

The northern part of Michigan is not generally presumed to be hospitable to roses, yet Mr. Fred Davidson, of Traverse City, Mich., seems to succeed admirably, and he has been provoked at the implication of the Rose-Zone Map. He tells how he handles his roses, both as to culture and protection:

We are located upon the high ground between the two arms of Grand Traverse Bay, where the northwest winds have clear sweep, and as we had no windbreak, a tight board fence 6 feet high was placed about the west and north sides. This has proved of double advantage—added warmth in spring and summer, and in the winter the snow piles over and makes drifts which protect the plants from any temperature which we could have (28 degrees below zero, our coldest thus far, did no damage whatever). The snow cannot be depended upon every winter, and for that reason the plants are hilled up with soil 8 to 10 inches, and after the ground freezes a litter is spread over the beds to retain the frost. The snow is our good friend and helps to protect such species as the Penzance hybrids which Mr. Egan has stated he was compelled to banish from "Egandale."

The climbing roses are laid flat upon the ground and covered completely with soil; they come out in the spring with canes as fresh as in the fall. This effect upon all rose plants seems to warrant hilling up the Hybrid Perpetuals, although they do not require it for protection. The best results have been obtained from stock budded upon the Multiflora root.

Some of us have greatly admired the Cherokee rose of the South. Elsewhere in the Annual its merits as a rose stock are suggested, but to have it live over winter in the North has not been within our idea. Mr. S. S. Pennock, a past-President of the American Rose Society, who lives at Lansdowne, near Philadelphia, has, however, concluded to make a trial, and after setting out some plants in the spring of 1920 so that they made a strong growth during that year, he has protected them in accordance with the following general plan:

I have covered them with burlap, and then on the outside of the burlap a covering of rye straw in order to shed the water.

At the present writing, March 2, 1921, after some unusually cold weather for us (11° and 12° above zero), I find the weaker shoots killed back, but the heavy canes in better shape. Another season I will be more careful about keeping off all water.

To the Secretary's office came, in January, a photograph of a very beautiful plant of Los Angeles, which was sent by Mr. Martin Meehan, of West Haven, Conn., and which was in abundant and rich bloom on November 12, 1920. Mr. Meehan's experience and method are well worth quoting:

I am sending you a photograph of some Los Angeles roses, which I thought exceptionally fine for the month of November. The plants were grown in a place where they could not get winter protection. I dig them up every fall and place them in a trench below the frost-line, or on an angle of 45 degrees. The roots are packed in loam and the tops are covered loosely. Then I fill the trench with leaves and cover all with tar paper. We have about five hundred other plants of other varieties, which are not dug up for the winter, but they do not bloom as well as the plants taken up. The Los Angeles blooms constantly from early June until killed by frost late in November.

All this seems definitely to prove again that anyone can have roses anywhere if he will take trouble enough—and those who do take the trouble usually believe it to be altogether worth while.

Protection seems to be more a matter of excluding the effect of the sun in the winter, particularly where there is not a heavy and continuous snowfall, than of keeping out the frost. Mr. Dunning's burlap method emphasizes this.

Clear of the scope of the Rose-Zone Map is cold Quebec! Hearing that nevertheless there were real rose-growers who defied the rigors of the climate, inquiry was instituted, with the result of finding an American Rose Society member who cheerfully wrote his experiences and his suggestions. Mr. Harry A. Norton, of Ayers Cliff, Quebec, Canada, thus tells his story:

In that part of the Province of Quebec known as the Eastern Townships, the winter temperature is frequently 20 degrees below zero, and sometimes much lower, yet a large number of the Hybrid Tea, and practically all the Hybrid Perpetual roses may be grown here with good success.

For several years the writer has been growing about 600 bushes, in fifty or sixty varieties, with little or no winter-killing. The only winter protection consists of hilling up at the base of the plant with eight or ten inches of earth. No other covering is used.

Tea roses and climbers have not proved entirely satisfactory and cannot always be depended upon to come through, even when covered. Occasionally

they have been saved and have given good blooms, but they are a gamble and hardly worth while, considering the great number of other classes available that are known to be perfectly hardy.

In the writer's opinion much depends upon the conditions in which the plants go into the winter. It has been observed that the loss was less following a comparatively dry autumn when the wood ripened well. In seasons when late growth was made and wood not well ripened, the loss was heavier, even though the winter was milder.

Perfect drainage is necessary for success. The writer's rose-garden is so gravelly that many visitors wonder how so many blooms can be produced in such apparently poor soil when the general idea prevails that fairly heavy or clay soil is essential for roses. The secret is perfect drainage, good cultivation, and a reasonable amount of fertilizer. The only fertilizer given is a liberal supply of well-rotted barnyard manure and bone-meal well worked into the ground at the time of planting, with an annual mulch of the same composition.

The perfectly hardy varieties that have proved outstandingly good and attracted the most attention in this district are Etoile de France, Killarney, Mme. Abel Chatenay, Mrs. Aaron Ward, Willowmere, Frau Karl Druschki, Baroness Rothschild, Arthur R. Goodwin, Ulrich Brunner, Ophelia, George Dickson, Chateau de Clos Vougeot, Juliet and Mme. Edouard Herriot.

What Roses Do Nurserymen's Agents Sell?

THE EDITOR ASKS

THOUSANDS of advance agents of horticulture, in the shape of traveling representatives of nurserymen, visit millions of American homes every year. These gentlemen, popularly known as "tree agents," carry catalogues and "plate-books" of pictures, and they do a very important work toward increasing the fruitfulness and the beauty of the land. To the persuasions of the printed word and the lithographed pictures—the latter sometimes rather awful, it must be confessed—they add the personal touch which, in many cases, is needed in order to cause the home-owner to buy and plant the trees, shrubs, and vines he ought to have.

What roses do these salesmen offer? It was hinted to the Editor that many of the agents had to show and to sell only ancient and unsuitable varieties, and that in consequence they were not really helping to make the rose universal in America in any favorable way.

As the best way to determine the facts, the Editor asked the

secretary of the American Association of Nurserymen to provide him with a list of the nurseries selling extensively through agents. Receiving this list, covering fourteen representative concerns in Connecticut, New York, Pennsylvania, Indiana, Michigan, Minnesota, Tennessee and Iowa, the Editor wrote to each for his list of roses being offered through agents.

Ten of the fourteen nurserymen courteously responded with their sales lists, and most of these asked suggestions. From his many years of knowledge of the nursery trade, the Editor is inclined to think that the ten firms thus responding have in the field more than two thousand working agents. The list which follows states the varieties inclusively, with a number following each name in indication of the number of the nursery firms offering it through their agents:

Hybrid Perpetual Roses: African Black, 1; American Beauty, 7; Alfred Colomb, 2; Anna de Diesbach, 3; Baron de Bonstetten, 5; Beauty of Waltham, 1; Black Prince, 1; Captain Hayward, 2; Clio, 5; Duke of Edinburgh, 1; Earl of Dufferin, 5; Eugene Furst, 2; Fisher Holmes, 3; Francois Levet, 1; Frau Karl Druschki, 8; General Jacqueminot, 8; General Washington, 1; Hugh Dickson, 1; J. B. Clark, 1; John Hopper, 6; Jubilee, 3; Louis Van Houtte, 1; Magna Charta, 6; Marchioness of Lorne, 1; Margaret Dickson, 6; Marie Van Houtte, 1; Mme. Charles Wood, 2; Mme. Gabriel Luizet, 3; Mme. Plantier, 4; Marshall P. Wilder, 7; Mrs. John Laing, 7; Paul Neyron, 8; Prince Camille de Rohan, 5; Tom Wood, 1; Ulrich Brunner, 6; Vick's Caprice, 1.

Brier Roses: Amy Robsart, 1; Anne of Geierstein, 1; Brenda, 1; Flora McIvor, 1; Harison's Yellow, 7; Meg Merrilies, 1; Persian Yellow, 6; Rose Bradwardine, 1; Rubiginosa, 1.

Rugosa Roses and Hybrids: Agnes Emily Carman, 1; Belle Poitevine, 1; Blanc Double de Coubert, 1; Conrad Ferdinand Meyer, 2; Hansa, 2; Mme. Charles Worth, 1; Mme. Georges Bruant, 2; New Century, 1; Rugosa alba, 3; Rugosa, Assorted, 2; Rugosa rubra, 3; Sir Thomas Lipton, 1.

Moss Roses: Comtesse de Murinais, 1; Crested Moss, 3; Glory of Mosses, 1; Henri Martin, 1; Luxemburg, 1; Pink Moss, 1; Perpetual White, 1; Red Moss, 2; Salet, 1; White Moss, 1.

Noisette Roses: Coquette des Alpes, 5; Coquette des Blanches, 1; Solfatare, 1.

Hybrid Tea Roses: Admiral Dewey, 1; Betty, 2; Etoile de France, 2; General MacArthur, 4; Gruss an Teplitz, 5; Jonkheer J. L. Mock, 3; Kaiserin Auguste Victoria, 3; Killarney, 5; Killarney Brilliant, 1; Lady Hillingdon, 1; LaFrance, 1; Laurent Carle, 1; Mme. Caroline Testout, 3; Mme. Jules Grolez, 1; My Maryland, 1; Ophelia, 1; Prince de Bulgarie, 1; Radiance, 3; Rhea Reid, 1; Richmond, 3; Souvenir de Pierre Notting, 1; Sunburst, 2; Wellesley, 1; White Killarney, 3.

Tea Roses: Blumenschmidt, 1; Etoile de Lyon, 1; Maman Cochet, 3; Maman Cochet, White, 2; Molly Sharman-Crawford, 1.

Baby Rambler and other Roses: Pink Baby Rambler, 9; White Baby Rambler, 3; Hermosa, China, 1; Juliet, Per., 1; Pink Soupert, H. Poly., 1; Soleil d'Or, Per., 1; Tree Roses, 2.

Hardy Climbing Roses: American Pillar, Mult., 1; Aviateur Bleriot, H.W., 1; Baltimore Belle, Set., 7; Christine Wright, H.W., 1; Climbing American Beauty,

H.W., 6; Climbing Gruss an Teplitz, Cl. H.T., 1; Crimson Rambler, Mult., 8; Dorothy Perkins, H.W., 9; Dr. W. Van Fleet, H.W., 2; Edwin Lonsdale, H.W., 1; Excelsa, H.W., 5; Flower of Fairfield, Mult., 5; Goldfinch, Mult. 1; Hiawatha, H.W., 2; Lady Gay, H.W., 3; Manda's Triumph, H.W., 1; Philadelphia, Mult., 1; Pink Rambler, H.W., 2; Pink Roamer, H.W., 1; Purity, H.W., 1; Queen of the Prairies, Set., 6; Russell's Cottage, Set., 1; Seven Sisters, Mult., 5; Silver Moon, H.W., 1; South Orange Perfection, H.W., 1; Tausendschön, Mult., 4; Tennessee Belle, Mult., 1; Trier, Mult., 1; Universal Favorite, H.W., 1; Veilchenblau, Mult., 2; White Dorothy Perkins, H.W., 4; White Rambler, Mult., 7; Wichuraiana, 3; Yellow Rambler, Mult., 7.

There is food for rose thought in these lists. Consider the 36 Hybrid Perpetual varieties, among which are at least ten "dead ones," and one Tea rose (Marie Van Houtte), with seven firms selling American Beauty, almost certain not to succeed. Only one firm is offering the really excellent J. B. Clark.

The Brier roses, the Rugosas and the Mosses, are much more nearly up to date, and may be considered as giving safe suggestions. Hugonis has not yet shed its early golden radiance on the customers of the agents.

The list of Hybrid Teas is pathetic in its inadequacy. Most of the agents do not offer them at all, it will be seen, and thus the rose varieties which by far exceed all other varieties in catalogue commerce are in a very minor relation to the agency distribution. The Tea roses are likewise in a minor relation, though that is not serious. Thus the "everblooming" roses, which could as easily be cared for by the farmer's wife as by any other rose-lover, are practically denied to thousands of homes.

But scan the list of hardy climbing roses, and note the ancient friends! Six firms are offering Queen of the Prairies: Why? But one sells American Pillar, and but two that most really popular of climbers, Dr. W. Van Fleet. Baltimore Belle still goes out through seven nurserymen, but only one has found his way to Silver Moon, and another one has discovered that gold-medal crimson climber, Excelsa, which should wholly replace Crimson Rambler.

The nurserymen need to wake up to their profitable opportunities, and help to make the rose universal in America! It would be business, and not philanthropy; yet the country homes would be vastly benefited. The Editor remembers one 150-mile motor trip through Pennsylvania in June with only six climbers seen.

Pacific Northwest Rose Shows

By JESSE A. CURREY, Portland, Ore.

EDITOR'S NOTE.—The Pacific Northwest takes the rose seriously, as is evidenced by the several articles in this Annual detailing the rose doings of that favored region near or on the Columbia River and Puget Sound. Mr. Currey sets graphically before us two strong shows among the half-dozen he mentions. These accounts tend to make more desirable the pilgrimage to the Pacific Northwest proposed to members and friends of the American Rose Society for 1922, as explained in this Annual, on page 116.

The marvelous rose conditions of this region are indicated in two beautiful photographs supplied by Mr. Currey (Plates IX and XIV) and in the Frontispiece supplied by Mr. Hays, of Tacoma.

THERE were two well-staged and large rose shows in the Pacific Northwest during 1920, one at Portland, Ore., and the other at Seattle, with other shows at Oregon City, Roseburg, Ore., Bellingham, Wash., and Tacoma, Wash.

The annual show at Portland took place in June during the national convention of the Mystic Shrine, to which there were about 80,000 visitors from all parts of the United States. From the gorgeous displays including the rose show, floral parades, and the rose-gardens constructed in the business streets, these thousands of visitors gained an idea of how the rose dominates Portland.

The week was also marked by an elaborate ceremony, in which about 800 children took part, in connection with the presentation of the prizes of the American Rose Society, the city of Portland, the Portland Chamber of Commerce, and the Portland Rose Society to the winners of the various classes in the International Rose-Test Gardens at Portland. These winners were announced in the 1920 Rose Annual. The celebration was also marked by the naming of Capt. George C. Thomas, Jr.'s rose, which won the prize for the best rose produced by an amateur. It was christened "W. Freeland Kendrick." The other rose named was a new Ophelia seedling by Albert Clarke, of Portland, which was christened "Imperial Potentate," in honor of the chief official of the Mystic Shrine.

The Portland show for the first time was staged outdoors in one of the park blocks, close to the business section. Attractive booths, made to resemble rustic summerhouses, were used

to display the choice blooms of Portland gardens, while winding paths and the sides of running brooklets and cascades of water were lined with growing roses. The display covered approximately 80,000 square feet, and the blooms in the amateur section numbered about 6,000, as only amateur gardens were admitted to competition. In addition to this was a display by the school children, the *Oregon Daily Journal* offering each day a prize for the best bloom staged by a school child. This was a popular section, and it had hundreds of enthusiastic juvenile exhibitors.

The box exhibits, similar to the English displays, continued to be the feature, as they are particularly adapted to exhibiting specimen blooms. The roses which were in the prize-winning exhibits of this section were:

Box of six specimen blooms: First prize—Laurent Carle, Lady Mary Ward, Marquis de Sinety, George Dickson, Radiance, and Hoosier Beauty; second prize—Lieut. Chauré, Duchess of Wellington, George Dickson, Farbenkönigin, Mme. Caroline Testout, Mrs. Joseph H. Welch.

Box of twelve specimen blooms: First prize—Mrs. A. R. Waddell, Mrs. Foley-Hobbs, Juliet, King George V, Yvonne Vacherot, W. E. Lippiatt, Mrs. David McKee, Captain Hayward, Gustav Grünerwald, Ulrich Brunner, Frau Karl Druschki, Duchess of Wellington; second prize—Mrs. Joseph H. Welch, Mme. Ravary, George C. Waud, Duchess of Wellington, Captain Hayward, Mrs. Theodore Roosevelt, Commandeur Jules Gravereaux, Antoine Rivoire, Richmond, Mme. Melanie Soupert, Juliet, J. B. Clark.

Box of eighteen specimen blooms: First prize—Mrs. Foley-Hobbs, Ophelia, Joseph Hill, Mrs. Amy Hammond, Lyons Rose, Mrs. Herbert Stevens, Lady Ashdown, Admiral Ward, Mrs. Wallace H. Rowe, General MacArthur, Juliet, Mrs. Aaron Ward, Kaiserin Auguste Victoria, King George V, Prince de Bulgarie, Killarney Queen, Mme. Segond-Weber, William Shean; second prize—Laurent Carle, Mrs. Cornwallis West, Sunburst, Duchess of Wellington, Joseph Hill, General MacArthur, General Jacqueminot, Harry Kirk, Mme. Philippe Rivoire, Molly Sharman-Crawford, Captain Hayward, Elizabeth Barnes, Ulrich Brunner, Mme. Ravary, Hugh Dickson, Frau Karl Druschki, King George V, Yvonne Vacherot.

Box of twenty-four specimen blooms: First prize only—Mrs. Herbert Stevens, Harry Kirk, Mrs. Charles Russell, Lyons Rose, Rhea Reid, Mme. Edmond Rostand, Captain Hayward, Coronation, Rayon d'Or, President Taft, Jonkheer J. L. Mock, André Gamon, Mary, Countess of Ilchester, Los Angeles, Marquis de Sinety, Duchess of Wellington, Hugh Dickson, Countess Clanwilliam, Gustav Grünerwald, Mrs. Harold Brocklebank, Juliet, Joseph Hill, Avoca, Mme. Melanie Soupert.

The rose show at Seattle was the largest and most successful ever held there. It was staged under the personal direction of Prof. Ivan W. Goodner, president of the Seattle Rose Society. The display comprised 1,236 individual entries, and there were

approximately 4,000 roses. The prize for the best rose in the show was awarded to a magnificent specimen of the old favorite Belle Siebrecht (properly Mrs. W. J. Grant). It was evident that Frau Karl Druschki continues to be a good exhibition rose, for it figured in the greatest number of prize-winning exhibitions, scoring in ten prizes. Second honors for the greatest number of winnings were divided between Lady Hillingdon, Ulrich Brunner, and Irish Elegance, each being staged in six winning exhibits. Other roses which were in more than one winning display were Lady Pirrie, Mrs. W. J. Grant (Belle Siebrecht), Duchess of Wellington, Sunburst, Joseph Hill, Mrs. John Laing, Mme. Edouard Herriot, General MacArthur, Juliet, Dr. W. Van Fleet, Los Angeles, Mrs. Aaron Ward, Mrs. Foley-Hobbs, Mrs. David McKee, Mme. Melanie Soupert.

The 1922 Rose Trip to the Pacific Northwest

By S. S. PENNOCK, Philadelphia

EDITOR'S NOTE.—Nothing could do more toward making the rose universal in America than to have rose-lovers, east and west, north and south, meet and know each other in a pilgrimage to the rose wonderland of the Northwest. A plan for this trip, to be taken so as to see the roses of Portland and Seattle at their best, is under careful study, and Mr. Pennock sets forth here the general idea so that those interested may be getting themselves ready for the greatest rose event of this century to date.

THE Executive Committee of the American Rose Society is planning a rose trip in June, 1922, to visit the rose regions of the Pacific Northwest. It is the idea to make the trip at the time when the roses in Portland and the Puget Sound regions are at their best.

We who go are asked, as part of the American Rose Society, to participate in the dedication of a wonderful "roseway" which is being built by the city of Portland, leading to the great Columbia Highway.

Various rose festivals on the way, or in the West, will be visited, and much special attention will be paid to those from the East who join in this first great rose pilgrimage. The rose



PLATE XIII. The Municipal Rose-Garden in St. Catharines, Ontario. (See page 102)

friends who join in the trip are likely to be congenial, for rose folks are generally "the best people" in the true sense.

A general itinerary has been discussed with a responsible tourist agency, which would provide complete attention and service of the best class throughout. About thirty days would be required from Chicago west and return, with suitable arrangements for those desiring to return later or by other routes.

The plan would be to use special Pullman cars, and possibly a special rose train starting from Chicago, where there might be an automobile trip through the parks and boulevards.

Reaching Denver, there would be special automobile trips to Rocky Mountain National Park, and to Colorado Springs and Pike's Peak.

Passing through the Royal Gorge en route to Salt Lake City, there would be a look at that interesting place, and then a wonderful visit to and through the Yellowstone National Park.

Following the Columbia River route to Portland, Oregon, we would there be "in the hands of our friends," for the rose events of the time. To Seattle, a complete visit to Rainier National Park, and the return trip by way of Glacier National Park, would follow, with a rose-stop at Minneapolis on the way to Chicago.

A variation may be worked out for those who wish to remain longer on the coast, and to visit San Francisco and other California points.

The above itinerary is preliminary only, and may be modified as inquiry and conditions warrant. The trip is to be primarily a rose and park trip, and is to be conducted in such manner as to make it comfortable and without annoyances throughout.

Members and friends of the American Rose Society are urged to correspond with the Secretary (John C. Wister, 606 Finance Building, Philadelphia) in order to be kept in touch with developments. Tell Mr. Wister that you are interested, and thinking of the trip; he will keep you in touch.

A VAN FLEET PRIZE-WINNER

Belated information from Portland, Oregon, tells us that the rose-tests in the Portland (Oregon) Rose-Test Garden in 1920 gave Dr. Van Fleet's new seedling, W. C. 124 (see Plate VI and page 33), awards as the best new rose for general outdoor cultivation, as the best outdoor climber, and as the best outdoor rose produced by an amateur.

Using America as a Rose-Test Garden

By BESS E. TRUMP, Harrisburg, Pa.

EDITOR'S NOTE.—The interest shown in the detailed reports from various rose-gardens and from the several Rose-Test Gardens of the Society prompted the Editor to attempt a general referendum among the alert members of the organization. A card was sent out in the 1920 Annual, asking members to report on it, under the question "What are your favorite roses, and *why?*" concerning the best ten Hybrid Teas, and five Hybrid Perpetuals and Climbers. The card provided an easy way to indicate merits in color, form, fragrance, profusion, vigor, and hardiness.

The response was very representative. Miss Trump has prepared a tabular showing, dividing the collated responses so as to deal separately with the New England, Middle, Central, Southern, and Western States.

THE replies that have been studied represent 261 different varieties of roses. There are 146 Hybrid Teas named, or better, Hybrid Teas, Teas, Pernetianas and Chinas included as "everblooming." In the New England States, Mrs. Aaron Ward is the most popular variety, with Duchess of Wellington a close second, and Killarney, Ophelia, Pharisaer, and Willowmere third. In the Middle States Ophelia leads, with Los Angeles second, and Duchess of Wellington, Lady Alice Stanley, Mrs. Aaron Ward, and Radiance third. Ophelia also retains its supremacy in the Southern States, with Radiance second and Laurent Carle third. Mme. Edouard Herriot and Los Angeles are equally popular in the Western States, with Mme. Melanie Soupert second and Mme. Abel Chatenay and General MacArthur third. The Central States give Mrs. Aaron Ward first place, Jonkheer J. L. Mock second, and Ophelia third.

The Hybrid Perpetuals are in 43 varieties, and Frau Karl Druschki is everywhere ahead. In the New England States, Gen. Jacqueminot and Mrs. John Laing tie for second place, and Prince Camille de Rohan third. In the Middle States, Ulrich Brunner is second and Mrs. John Laing third. Paul Neyron takes second place in the Southern States, and J. B. Clark and Ulrich Brunner third. The Western and Central States move Ulrich Brunner up to second, while in the former Gen. Jacqueminot and Mrs. John Laing are third.

Climbing roses are represented in 72 varieties listed. New England prefers Dorothy Perkins, with American Pillar and Dr. W. Van Fleet second, and Silver Moon and Tausendschön third. The Middle States place Dr. W. Van Fleet in the lead, Silver Moon second, and Dorothy Perkins and Tausendschön

third. Dr. W. Van Fleet and Silver Moon are tie for first place in the South, with American Pillar second and Excelsa third. In the West, Tausendschön comes to the fore, followed by Climbing Mme. Caroline Testout and Dr. W. Van Fleet. The Central States give Dorothy Perkins, Dr. W. Van Fleet, and Excelsa first place.

FAVORITE HYBRID TEA ROSES IN NEW ENGLAND STATES

(Massachusetts, Rhode Island, and Connecticut)

NAME	Color	Form	Fragrance	Profusion	Vigor	Hardiness	NAME	Color	Form	Fragrance	Profusion	Vigor	Hardiness
Antoine Rivoire (Mrs. Taft)	1	2	1	2	1	1	Maman Cochet, T.	1	1				
Betty	1	1		1	1	1	Mary, Countess of Ilchester	1	1				
British Queen	1	1	1			1	Mme. Abel Chatenay	2	2	2	1		1
Chateau de Clos Vougeot	2	1	1			1	Mme. Caroline Testout	2	2	1	1	2	1
Columbia	1	1					Mme. Colette Martinet	1	1	1			
Constance, Per.	1	1				1	Mme. Edouard Herriot, Per.	3	1	1	1	2	3
Dean Hole	1	1	1	1	1	1	Mme. Jules Bouché	2	1	1	2	1	1
Double White Killarney	1	1	1			1	Mme. Jules Grolez	1	1				1
Duchess of Wellington	6	4	2	3	4	5	Mme. Leon Pain	1	2	1	1	1	2
Duchess of Westminster	1	1				1	Mme. Melanie Soupert	1	1				1
General MacArthur	3	1	3	3	2	4	Mme. Segond-Weber	2	2	1	1	1	2
Gloire Lyonnaise	1	1				1	Mrs. Aaron Ward	7	5	3	4	2	5
Gorgeous	1					1	Mrs. A. R. Waddell	1	1				1
Gruss an Teplitz	3		2	3	2	2	Mrs. Charles Custis Harrison	1	1	1			1
Gustave Regis	1	1					Mrs. F. W. Vanderbilt, Per.	1	1		1	1	1
Harry Kirk, T.	1	1	1	1		1	My Maryland	1	1				
Johanna Sebus	1	1	1			1	Ophelia	4	4	2	2	3	5
Jonkheer J. L. Mock	3	2		2	1	2	Perle Von Godesberg	1	1	1	1	1	2
Kaiserin Auguste Victoria	2	4	4	1	1	1	Pharisaer	4	4	1	2	2	2
Killarney	4	3	3	3	2	3	Radiance	3	2	3	3	3	3
Killarney Queen	3	3	3	3	3	2	Red Radiance	2	1	1	2	2	2
Lady Alice Stanley	2	2	2	1	1	2	Richmond	1					1
Lady Ashtown	2	2	1	2	1	2	Robin Hood	1	1			1	1
Lady Pirrie	2	2	2	2	2	2	Rose Queen	1	1	1			
La France	1	1	1	1	1	1	Sunburst	1	1	1			
Laurent Carle	2	3	2	2		2	White Killarney	1	1	2	2	2	3
Los Angeles	2	2	1			2	Willowmere	4	3			1	3
Louise Catherine Breslau, Per.	1					1	William R. Smith, T.	2	2		1	2	1

FAVORITE HYBRID PERPETUALS IN NEW ENGLAND STATES

NAME	Color	Form	Fragrance	Fall Bling.	Vigor	Hardiness	NAME	Color	Form	Fragrance	Fall Bling.	Vigor	Hardiness
Captain Christy	1	1	1		1	1	Marshall P. Wilder	1	1	1	1		1
Francois Levet	1	1					Mme. Gabriel Luizet	1	1			1	1
Frau Karl Druschki	10	10		7	9	9	Mme. Masson	1	1	1	1		1
General Jacqueminot	5	4	5	1	2	2	Mrs. John Laing	5	4	4	3	5	4
George Arends	2	2	2	1	1	1	Oakmont	1					
Gloire de Chédane Guinoisseau	2	2			1	1	Paul Neyron	2	2	2	2	3	3
Heinrich Münch	1	1					Prince Camille de Rohan	3	1	3		1	3
J. B. Clark	2	2	1		1	1	Ulrich Brunner	3	3	3		3	3
Magna Charta	1	1	1	1	1	1							

FAVORITE CLIMBING ROSES IN THE NEW ENGLAND STATES

NAME	Color	Form	Habit	Vigor	Hardness	NAME	Color	Form	Habit	Vigor	Hardness
Alida Lovett, H.W.	1	1	1	1	1	Excelsa, H.W.	1	1	1	1	1
American Pillar, Mult.	5	3	5	5	5	Farquhar, H.W.	1	1	1	1	1
Aviateur Bleriot, H.W.	1	1	1			Goldfinch, Mult.	1	1	1	1	1
Baltimore Belle, Set.	1	1				Hiawatha, H.W.	3	3	2	2	2
Birdie Blye, Mult.	1	1		1	1	Lady Gay, H.W.	2	2	2	2	2
Christine Wright, H.W.	2	3	2	3	2	Paul's Carmine Pillar, Cl.H.T.	2	1	1	1	1
Cl. American Beauty, H.W.	2	3	2	3	3	Paul's Scarlet Climber, H.W.	1	1			1
Coronation, H.W.	1	1	1	1	1	Roserie, Mult.	1	1	1		
Crimson Rambler, Mult.	1	1	1	1	1	Silver Moon, H.W.	4	3	3	1	2
Dorothy Perkins, H.W.	6	6	4	6	6	Sweetheart, Mult.	1	1	1		
Dr. W. Van Fleet, H.W.	5	5	4	2	3	Tausendschön, Mult.	4	2	4	3	4
Evergreen Gem, H.W.	1	1	1	1	1	White Dorothy Perkins, H.W.	2	2	2	2	2

FAVORITE HYBRID TEA ROSES IN THE MIDDLE STATES (New York, New Jersey, Pennsylvania, and Delaware)

NAME	Color	Form	Fragrance	Profusion	Vigor	Hardness	NAME	Color	Form	Fragrance	Profusion	Vigor	Hardness
Admiral Ward	1				1		La France	4	4	4	2	2	3
Antoine Rivoire (Mrs. Taft)	4	5		1		2	La Tosca	5	4	1	3	4	5
Apotheker Georg Höfer	1	1	1	1	1	1	Laurent Carle	6	5	2	1	3	4
Avoca	1	1	1	1	1	1	Los Angeles	13	12	2	2	7	5
Belle Lyonnaise, T.	1	1				1	Lyon, Per.	3	3			1	2
Bessie Brown	1	1	1	1	1		Maman Cochet, T.	1	1		1	1	
Betty	3	2	2	1			Marquis de Sinety	3	2	1	1	1	
Bianca	1	1				1	Mary, Countess of Ilchester	2	2	1	1	1	
Columbia	3	3	3	3	3	2	Mme. Abel Chatenay	2	3	1	2	3	2
Countess Clanwilliam	1	1		1			Mme. Caroline Testout	7	4	3	1	1	6
Countess of Shaftesbury	1	1		1	1		Mme. Charles Lutaud	2	2	1			
Duchess of Wellington	12	10	6	4	7	6	Mme. Edouard Herriot, Per.	4	2	1	1		1
Duchess of Westminster	1	1	1	1			Mme. Jules Bouché	6	5	1	4	4	5
Etoile de France	1	1	1	1	1	1	Mme. Jules Grolez	2	2	1	1		1
Farbenkönigin	1	1			1	1	Mme. Leon Pain	7	7	1	4	5	4
Francis Scott Key	1	1		1	1	1	Mme. Marcel Delanney	2	2		2	2	2
Frank W. Dunlop	2	2	2				Mme. Melanie Soupert	1	1				
General MacArthur	4	4	3		2	2	Mme. Ravary	1	1	1	1	1	1
Gen.-Superior Arnold Janssen	1	1		1	1	1	Mme. Segond-Weber	1	1				
George C. Waud	2	2	1	2	1	1	Mrs. Aaron Ward	12	10	4	8	5	6
Gloire Lyonnaise	2				2		Mrs. Ambrose Ricardo	3	4				1
Golden Emblem	1	1					Mrs. A. R. Waddell	5			4	4	4
Gorgeous	1	1				1	Mrs. Charles Custis Harrison	1	1	1	1	1	1
Grace Molyneux	4	3	2	2	4	3	Mrs. Charles J. Bell	1	1	1	1	1	1
Grange Colombe	1	1		1	1	1	Mrs. MacKellar	1	1				
Gruss an Teplitz	9	3	9	12	10	10	Mrs. Wakefield C.-Miller	1	1		1	1	1
Hadley	4	4	1	1	2	1	Mrs. Wemyss Quin	1	1	1		1	1
Harry Kirk, T.	2	2	1				My Maryland	1	1				
Hon. Ina Bingham	2				1		Ophelia	20	18	5	9	8	10
Hoosier Beauty	5	5	3	4	2	2	Papa Gontier, T.	1	1	1	1		
Irish Fireflame	1	2		1		2	Pharisaer	5	5	1	4	3	2
Janet	1	1	1				Premier	1	1	1	1	1	
Jonkheer J. L. Mock	7	7	1	4	4	3	Prince de Bulgarie	3	2	1	1	2	1
Joseph Hill	2	1			1		Queen of Fragrance				1		
Kaiserin Auguste Victoria	8	9	3	2	5	6	Radiance	12	10	5	9	9	8
Killarney	2	3	3	2			Red Radiance	3	2	3	3	2	
Killarney Brilliant	1	1		1			Richmond	4	1	1	2		2
Killarney Queen	1	1	1		1	1	Robin Hood	1	1				
Königin Carola	1	1	1	1	1	1	Soleil d'Or, Per.	1					
Lady Alice Stanley	12	12	3	7	7	12	Souv. de Gustave Prat	1	1				
Lady Ashtown	3	3		3	1	3	Souv. du President Carnot	2	2				1
Lady Hillingdon	3			1	1		Sunburst	7	6			1	
Lady Mary Ward	1	1					White Killarney	1	1		1		1
Lady Pirrie	4	4		1	3	4	William R. Smith, T.	1	1				
Lady Ursula	4	4		4	2	3	Willowmere, Per.	9	9	2	3	9	8

FAVORITE HYBRID PERPETUAL ROSES IN MIDDLE STATES

NAME	Color	Form	Fragrance	Fall Blng.	Vigor	Hardness	NAME	Color	Form	Fragrance	Fall Blng.	Vigor	Hardness
American Beauty	3	2	3	2	1	2	Hugh Dickson	3	3	3	1	2	3
Anna de Diesbach	2	1	1	1	1	2	J. B. Clark	7	5	4	1	4	6
Baron de Bonstetten	1	2	2	1	1	1	Jubilee	1	1	1	1	1	1
Baronne Adolphe de Rothschild	4	3	2	1	2	2	Ludwig Moeller	1	1	1	1	1	1
Captain Christy	1	2	2	1	1	1	Magna Charta	5	4	4	4	6	6
Captain Hayward	1	1	1	1	1	1	Margaret Dickson	1	1	1	1	1	1
Clio	4	4	1	1	3	2	Marshall P. Wilder	1	1	1	1	1	1
Conrad F. Meyer, H. Rug.	1	1	1	1	1	1	Mme. Gabriel Luizet	1	1	1	1	1	1
Coronation	2	1	1	1	1	1	Mrs. John Laing	11	11	7	7	7	10
Crested Moss	1	1	1	1	1	1	Mrs. R. G. Sharnan-Crawford	4	2	2	1	3	4
Frau Karl Druschki	19	20	3	13	20	18	Oskar Cordel	1	1	1	1	1	1
General Jacqueminot	5	3	4	3	2	3	Paul Neyron	4	4	2	3	3	4
George Arends	8	7	4	3	6	6	Prince Camille de Rohan	5	2	3	2	3	2
George Dickson	3	3	2	1	2	1	Suzanne Marie Rodocanachi	1	1	1	1	1	1
Gloire de Chédane Guinoisseau	1	1	1	1	1	1	Ulrich Brunner	17	13	9	2	13	14

FAVORITE CLIMBING ROSES IN THE MIDDLE STATES

NAME	Color	Form	Habit	Vigor	Hardness	NAME	Color	Form	Habit	Vigor	Hardness
Aglaia, Mult.	1	1	1	1	1	Excelsa, H.W.	6	2	4	4	5
Alberic Barbier, H.W.	2	2	1	1	1	Gainsborough, Cl.H.T.	1	1	1	1	1
American Pillar, Mult.	7	8	6	7	6	Gardenia, H.W.	5	4	2	3	3
Ards Rover, Cl.H.P.	1	1	1	1	1	Ghislaine de Feligonde, Mult.	1	1	1	1	1
Aviateur Bleriot, H.W.	1	1	1	1	1	Gloire de Dijon, Cl.T.	2	1	1	1	1
Billard et Barre, Cl.T.	1	1	1	1	1	Hiawatha, H.W.	2	2	2	3	2
Christine Wright, H.W.	5	4	2	2	3	Lady Gay, H.W.	2	2	2	2	2
Climbing American Beauty, H.W.	6	6	3	3	5	Lyon Rambler, Mult.	1	1	1	1	1
Climbing Cecile Brunner, Mult.	1	1	1	1	1	Minnehaha, H.W.	1	1	1	1	1
Climbing Lady Ashtown, Cl.H.T.	1	1	1	1	1	Mme. Alfred Carriere, H.Nois.	1	1	2	1	1
Climbing La France, Cl.H.T.	1	1	1	1	1	Mrs. Robert Peary, Cl.H.T.	1	1	1	1	1
Cl. Mme. Car. Testout, Cl.H.T.	1	1	1	1	1	Paul's Carmine Pillar, Cl.H.T.	2	2	2	1	1
Cl. Mme. Mel. Soupert, Cl.H.T.	1	1	1	1	1	Paul's Scarlet Climber, H.W.	3	3	3	3	3
Crimson Rambler, Mult.	1	1	1	1	1	Reine Marie Henriette, Cl.T.	1	1	1	1	1
Dorothy Perkins, H.W.	9	4	7	10	10	Silver Moon, H.W.	12	13	9	14	12
Dr. W. Van Fleet, H.W.	21	18	13	14	16	Tausendschön, Mult.	9	5	7	7	9
Evangeline, H.W.	1	1	1	1	1	William A. Richardson, H.Nois.	1	1	1	1	1
Evergreen Gem, H.W.	1	1	1	1	1						

FAVORITE CLIMBING ROSES IN THE SOUTHERN STATES

(District of Columbia, Georgia, Alabama, North Carolina, Maryland, West Virginia, and Kentucky)

NAME	Color	Form	Habit	Vigor	Hardness	NAME	Color	Form	Habit	Vigor	Hardness
Alberic Barbier, H.W.	1	1	1	1	1	Marechal Niel, H.Nois.	2	1	1	1	1
American Pillar, Mult.	5	2	5	5	5	Mary Lovett, H.T.	2	1	1	1	1
Cl. American Beauty, H.W.	2	2	2	2	2	Mrs. Chas. Gersdorff, Cl.H.T.	1	1	1	1	1
Cl. Mme. Car. Testout, Cl.H.T.	2	2	2	2	2	Mrs. Robert Peary, Cl.H.T.	2	2	1	2	1
Cl. Souv. of Wootton, Cl.H.T.	2	1	2	1	2	Paul's Scarlet Climber, H.W.	1	1	1	1	1
Dorothy Perkins, H.W.	3	1	3	3	3	Purple East, Mult.	1	1	1	1	1
Dr. W. Van Fleet, H.W.	7	6	6	6	6	Reine Marie Henriette, Cl.T.	2	1	1	1	1
Excelsa, H.W.	1	1	4	4	4	Silver Moon, H.W.	6	5	6	6	6
Gardenia, H.W.	3	3	3	3	3	Tausendschön, Mult.	1	1	1	1	1
Gloire de Dijon, Cl.T.	1	1	1	1	1	Wm. Allen Richardson, H.Nois.	2	1	1	1	1
Lady Gay, H.W.	1	1	1	1	1	Zephirine Drouhin, H.Bour.	1	1	1	1	1

FAVORITE HYBRID TEA ROSES IN THE SOUTHERN STATES

NAME	Color	Form	Fragrance	Profusion	Vigor	Hardiness	NAME	Color	Form	Fragrance	Profusion	Vigor	Hardiness
Antoine Rivoire (Mrs. Taft)	1	2	1	1	1	1	Los Angeles	3	3	3	2	2	1
Betty	2	2	1	1	2	2	Maman Cochet, T.	1	1	1	1	1	1
Chateau de Clos Vougeot	1	1	1	1	1	1	Marie Van Houtte, T.	1	1	1	1	1	1
Columbia	6	5	4	3	4	3	Marquise de Ganay	1	1	1	1	1	1
Countess of Gosford	1	1	1	1	1	1	Marquise de Sinety	1	1	1	1	1	1
Duchesse de Brabant, T.	1	1	1	1	1	1	Miss Cynthia Forde	1	1	1	1	1	1
Duchess of Sutherland	1	1	1	1	1	1	Mme. Caroline Testout	5	3	2	2	4	5
Duchess of Wellington	4	3	4	4	4	2	Mme. Edouard Herriot	1	1	1	1	1	1
Etoile de France	2	1	1	1	1	1	Mme. Jules Bouché	4	3	1	4	4	3
Farbenkönigin	1	1	1	1	1	1	Mme. Lombard, T.	1	1	1	1	1	1
Florence Pemberton	1	1	1	1	1	1	Mme. Leon Pain	3	3	2	1	2	2
Francis Scott Key	2	1	1	1	1	1	Mme. Marcel Delanney	1	1	1	1	1	1
General MacArthur	1	1	1	1	1	1	Mme. Segond-Weber	2	2	2	2	1	1
General-Superior A. Janssen	2	1	2	3	3	3	Mrs. Aaron Ward	3	2	2	3	2	1
Grange Colombe	1	1	1	1	1	1	Mrs. A. R. Waddell	2	2	2	2	2	2
Gruss an Teplitz	5	1	4	5	5	5	Mrs. Charles Russell	1	1	1	1	1	1
Harry Kirk, T.	2	2	1	1	2	2	Mrs. Charles J. Bell	1	1	1	1	1	1
Helen Gould	2	1	1	1	1	1	Mrs. Franklin Dennison	2	2	1	1	1	1
Herzog Friedrich II von Anhalt	1	1	1	1	1	1	Mrs. George Shawyer	1	1	1	1	1	1
Indiana	1	1	1	1	1	1	My Maryland	2	2	1	4	5	4
Jonkheer J. L. Mock	4	4	2	1	4	4	Ophelia	3	8	4	4	5	4
Kaiserin Auguste Victoria	1	1	1	1	1	1	Pharisaer	1	1	1	1	1	1
Killarney	1	1	1	1	1	1	Premier	1	1	1	1	1	1
Killarney Queen	1	1	1	1	1	1	Radiance	9	5	8	9	9	9
Lady Alice Stanley	4	3	3	2	4	3	Red Radiance	4	4	3	3	4	5
Lady Ashtown	3	4	1	3	4	3	Safrano	1	1	1	1	1	1
Lady Hillingdon	2	2	2	2	1	1	Souv. du President Carnot	2	2	2	1	1	1
Lady Pirrie	3	4	2	4	4	4	Sunburst	2	1	1	1	1	1
Lady Ursula	3	2	2	3	2	2	Wellesley	1	1	1	1	1	1
La France	1	2	2	2	2	2	White Maman Cochet, T.	2	2	1	2	2	2
La Tosca	2	1	2	2	2	2	William R. Smith, T.	2	2	1	1	1	1
Laurent Carle	7	7	6	3	6	6	Willowmere, Per.	6	5	1	1	2	4

FAVORITE HYBRID PERPETUAL ROSES IN SOUTHERN STATES

NAME	Color	Form	Fragrance	Fall Blng.	Vigor	Hardiness	NAME	Color	Form	Fragrance	Fall Blng.	Vigor	Hardiness
Alfred Colomb	1	1	1	1	1	1	John Keynes	1	1	1	1	1	1
Captain Hayward	1	1	1	1	2	2	Magna Charta	2	2	1	1	2	2
Fisher Holmes	1	1	1	1	1	1	Marshall P. Wilder	1	2	2	2	2	2
Frau Karl Druschki	13	12	2	9	11	10	Mrs. John Laing	4	3	3	4	2	3
General Jacqueminot	4	4	3	3	3	4	Mrs. R. G. Sharm'n-Crawford	1	1	1	1	1	1
George Arends	4	3	4	1	1	1	New Century, H. Rug.	1	1	1	1	1	1
George Dickson	2	2	2	1	2	2	Oakmont	1	1	1	1	1	1
Hugh Dickson	2	2	1	1	2	2	Paul Neyron	7	7	3	4	6	5
J. B. Clark	5	5	1	2	5	4	Ulrich Brunner	5	4	3	4	4	3
John Hopper	2	2	2	1	2	2							

FAVORITE CLIMBING ROSES IN THE CENTRAL STATES

(Ohio, Missouri, Iowa, Kansas, Mississippi, and Michigan)

NAME	Color	Form	Habit	Vigor	Hardiness	NAME	Color	Form	Habit	Vigor	Hardiness
American Pillar	1	1	2	3	3	Cl. My Maryland	1	6	3	1	1
Aunt Harriet	1	1	1	1	1	Dorothy Perkins	6	5	5	4	4
Aviateur Bleriot	1	1	1	1	1	Dr. W. Van Fleet	6	5	6	4	4
Christine Wright	2	1	2	1	1	Excelsa	6	2	7	6	6
Chromatella	1	1	1	1	1	Flower of Fairfield	1	1	1	1	1
Cl. American Beauty	4	4	2	5	6	Marchal Niel	1	1	1	1	1
Cl. Gruss an Teplitz	2	2	2	2	2	Reve d'Or	1	1	1	1	1
Cl. Lady Ashtown	1	1	1	1	1	Silver Moon	2	2	1	2	1
Cl. Maman Cochet	1	1	1	1	1	Tausendschön	1	1	1	2	2
Cl. Meteor	1	1	1	1	1	Veilchenblau	1	1	1	1	1

FAVORITE HYBRID PERPETUAL ROSES IN THE CENTRAL STATES

NAME	Color	Form	Fragrance	Fall Blng.	Vigor	Hardness	NAME	Color	Form	Fragrance	Fall Blng.	Vigor	Hardness
American Beauty	2	2	2				J. B. Clark	1	1	1		1	1
Anna de Diesbach			1			1	La Reine	1	1	1		1	1
Baron de Bonstetten	1	1					Magna Charta	2				3	3
Captain Hayward	2		2	1	2	2	Mme. Masson	1			1		
Clio	1	1	1				Mme. Plantier				1	1	1
Frau Karl Druschki	7	7		4	7	6	Mrs. John Laing	4	3	3	2	3	5
General Jacqueminot	4	3	3		3	4	Mrs. R.G.Sharman-Crawford	1	1		1	1	1
George Dickson	3	2	3		3	2	Paul Neyron	5	4	1	3	3	4
Gloire de Chedane Guinoisseau	1			1	1	1	Ulrich Brunner	6	4	4	2	5	6

FAVORITE HYBRID TEA ROSES IN THE CENTRAL STATES

NAME	Color	Form	Fragrance	Profusion	Vigor	Hardness	NAME	Color	Form	Fragrance	Profusion	Vigor	Hardness
Antoine Rivoire	1	1				1	Maman Cochet, T.	2	1	2	2	2	2
Betty	2	1		1	1	1	Milady	1		1	1		
British Queen	1	1			1	1	Miss Cynthia Forde	1	1				
Chateau de Clos Vougeot	4	1	2		1	3	Mme. Caroline Testout	4	1	3	3	3	3
Columbia	3	3	1	2	1	1	Mme. Edouard Herriot, Per.	2	1	1			
Duchess of Wellington	2	1	1	2	2	1	Mme. Jules Bouche	2	2	1	1		
Etoile de France	2	2	2	2	2	2	Mme. Jules Grolez	1	1	1	1	1	1
Farbenkönigin	2	1			1	1	Mme. Leon Pain	3	3	2	1	1	2
Francis Scott Key	1	1					Mme. Second Weber	2	2				
Friedrichsruh	1	1	1	1			Mrs. Aaron Ward	7	6		5	1	1
General MacArthur	3	2	3	2	3	3	Mrs. Charles Russell	1	1	1	1	1	1
Gorgeous	1	1	1				Mrs. Herbert Stevens, T.	1	1	1	1	1	1
Grossherzog Friedrich	1	1			1		My Maryland	1			1		
Gruss an Teplitz	5	1	1	6	5	5	Old Gold	1	1	1			
Hadley	1	1					Ophelia	5	5	3	3	3	1
Irish Fireflame	1				1	1	Premier	2	2	1	1	1	1
Jonkheer J. L. Mock	6	6			1	1	Radiance	3	2	2	3	4	3
Kaiserin Auguste Victoria	1	1					Red Radiance	1		1		1	1
Killarney	3	1		2		2	Rhea Reid	1	1		1	1	1
Killarney Brilliant	1			1			Sunburst	2	1			1	1
Lady Alice Stanley	4	3	1		2	2	White Killarney	2			2		
Lady Ashtown	1	1	1		1	1	White Maman Cochet, T.	1	1		1	1	1
Lady Hillingdon	3	3	2	2	2	3	White Ophelia	1	1	1	1	1	1
Lady Ursula				1	1	1	William R. Smith, T.	3	3	1	2	4	3
Laurent Carle	3	2	1		1	1	Willowmere	1	1	6	1	1	1
Los Angeles	5	4	4	1	1	3							

FAVORITE CLIMBING ROSES IN THE WESTERN STATES
(Washington, Oregon, California, Texas, and Idaho)

NAME	Color	Form	Habit	Vigor	Hardness	NAME	Color	Form	Habit	Vigor	Hardness
American Pillar, Mult.	3		4	3	3	Dr. W. Van Fleet, H.W.	4	4	4	4	4
Ards Pillar, Cl.T.	1	1			1	Excelsa, H.W.	1	1	1	1	1
Beauty of Glazenwood, H.Nois.	1	1	1	1	1	Gardenia, H.W.	1	1	1	1	1
Chromatella, H.Nois.	1	1	1		1	Gloire de Dijon, Cl.T.	1			1	1
Cl. American Beauty, H.W.	2	2	2	2	2	Gloire des Rosomanes, Cl.Bour.	1	1		1	1
Cl. Cecil Brunner, Mult.	2	2	2	2	1	Hiawatha, H.W.	1	1	1	1	1
Cl. Killarney Queen, Cl.H.T.	1	1				Lamarque, H.Nois.			1	1	1
Cl. Lady Hillingdon, Cl.T.	1	1				Marechal Niel, H.Nois.	2	2	1	1	1
Cl. Mme. Car. Testout, Cl.H.T.	5	4	4	4	3	Mme. Alfred Carriere, H.Nois.	2	2	2	2	2
Cl. Mrs. W. J. Grant, Cl.H.T.	2	2	1	1	1	Mrs. Robert Peary, Cl.H.T.	2	2	1	2	2
Cl. Papa Gontier, Cl.T.	1	1		1	1	Paul's Scarlet Climber, H.W.	1	1	1	1	1
Cl. Richmond, Cl.H.T.	1	1	1	1	1	Reine Marie Henriette, Cl.T.	3	3	1	3	1
Cl. Sunburst, Cl.H.T.	1	1	1	1	1	Silver Moon, H.W.	2	1	1	2	1
Cl. White Maman Cochet, Cl.T.	2	2	1	2	1	Soleil d'Or, A.B.	1	1			1
Cl. Winnie Davis, Cl.H.T.	1	1	1	1	1	Tausendschön, Mult.	6	4	5	6	5
Dorothy Perkins, H.W.	3	1	3	3	3						

FAVORITE HYBRID TEAS IN THE WESTERN STATES

NAME	Color	Form	Fragrance	Profusion	Vigor	Hardiness	NAME	Color	Form	Fragrance	Profusion	Vigor	Hardiness
Antoine Rivoire (Mrs. Taft)	2	2	1	2	1	1	Marquis de Querhoent	1	1	1	1	1	1
Bon Silene, T.	1	1	1	1	1	1	Marquis de Sinety	2	2	2	2	2	2
Chateau de Clos Vougeot	1	1	1	1	1	1	Mlle. Franzisca Kruger, T.	1	1	1	1	1	1
Clara Watson	1	1	1	1	1	1	Mme. Abel Chatenay	6	6	2	6	3	4
Columbia	1	1	1	1	1	1	Mme. Caroline Testout	5	5	2	5	5	5
Constance, Per.	1	1	1	1	1	1	Mme. Edouard Herriot	8	8	1	3	1	1
Duchesse de Brabant, T.	1	1	1	1	1	1	Mme. Jules Bouché	1	1	1	1	1	1
Duchess of Wellington	4	4	1	1	1	1	Mme. Leon Pain	7	7	2	7	1	1
Edu Meyer	1	1	1	1	1	1	Mme. Melanie Soupert	1	1	1	1	1	1
Edward Mawley	1	1	1	1	1	1	Mme. Ravary	3	2	3	2	2	2
General MacArthur	6	4	6	4	3	4	Molly Sharman-Crawford, T.	1	1	1	1	1	1
Hadley	2	1	1	1	1	1	Mrs. Aaron Ward	3	3	2	1	1	1
Hermosa, C.	1	1	1	1	1	1	Mrs. Ambrose Ricardo	1	1	1	1	1	1
Hoosier Beauty	2	1	2	1	1	1	Mrs. A. R. Waddell	1	1	1	1	1	1
Irish Elegance	1	1	1	1	1	1	Mrs. David McKee	2	1	2	1	2	2
Jonkheer J. L. Mock	1	2	1	1	1	1	Mrs. George Shawyer	2	2	1	2	1	1
Joseph Hill	3	2	1	2	2	2	Mrs. Henry Winnett	1	1	1	1	1	1
Killarney	1	1	1	1	1	1	My Maryland	1	1	1	1	1	1
Killarney Queen	1	1	1	1	1	1	Ophelia	3	3	1	2	1	1
La Detroit	1	1	1	1	1	1	Pharisaer	1	1	1	1	1	1
La France	1	1	1	1	1	1	Prince de Bulgarie	1	1	1	1	1	1
Lady Alice Stanley	1	1	1	1	1	1	Queen of Fragrance	1	1	1	1	1	1
Lady Hillingdon	3	4	2	3	2	1	Radiance	3	2	2	2	3	3
Lady Pirrie	2	1	2	2	2	1	Richmond	2	2	1	1	1	1
Lady Roberts, T.	1	1	1	1	1	1	September Morn	1	1	1	1	1	1
Lady Ursula	1	1	1	1	1	1	Sunburst	2	1	2	2	2	2
Lena	1	1	1	1	1	1	The Bride, T.	1	1	1	1	1	1
Lieutenant Chauré	1	1	1	1	1	1	Viscountess Enfield, Per.	1	1	1	1	1	1
Los Angeles	8	8	4	7	6	3	White Maman Cochet, T.	2	2	1	2	2	2
Lyon	2	2	1	2	2	2	William R. Smith, T.	1	1	1	1	1	1
Maman Cochet, T.	2	2	1	2	2	2	Willowmere, Per.	1	1	1	1	1	1
Marie Van Houtte, T.	1	1	1	1	1	1	Winnie Davis	3	3	1	2	2	2

FAVORITE HYBRID PERPETUAL ROSES IN WESTERN STATES

NAME	Color	Form	Fragrance	Fall Blng.	Vigor	Hardiness	NAME	Color	Form	Fragrance	Fall Blng.	Vigor	Hardiness
Baron de Bonstetten	2	1	1	1	2	2	General Jacqueminot	3	2	3	2	2	2
Candeur Lyonnaise	1	1	1	1	1	1	Hugh Dickson	4	2	3	3	4	4
Captain Christy	1	1	1	1	1	1	J. B. Clark	2	2	1	1	3	3
Clio	1	1	1	1	1	1	Mme. Gabriel Luizet	1	1	1	1	1	1
Eugene Furst	1	1	1	1	1	1	Mrs. John Laing	4	2	3	4	4	4
Frau Karl Druschki	8	9	3	7	9	9	Mrs. R. G. Sharm'n-Crawford	1	1	1	1	1	1
George Arends	1	1	1	1	1	1	Paul Neyron	2	1	1	1	2	2
George Dickson	1	1	1	1	1	1	Ulrich Brunner	5	3	3	3	5	5

DO THE AMERICAN ROSE SOCIETY—AND YOURSELF—A SERVICE

There will be inserted in this Annual two return cards. One will ask you to tell us your rose experiences. The other will ask you to name some friends for membership. Your help will count; no one else can give it. Will you?

Roses Round the World

CORRESPONDENCE WITH THE EDITOR

THE universality of rose-love is made apparent in the friendly correspondence it has been the joy of the Editor to receive and to respond to. The letters from Australia, from Italy, and from Germany will prove interesting to those who love the rose not only for its own merits but for its power to socialize humanity. See, also, important French and English articles, pages 144, 149.

WE HEAR FROM GERMANY!

From Sparrieshoop, Holstein, in the north of Germany, there came to Secretary White, during the fall of 1920, a long rose letter. Extracts from it follow:

Not many of the American rose-men ever come to Holstein, if ever they come to Germany at all. Some may have heard of the land where the briers are cultivated by the millions and the roses are grown in nearly equal numbers, but most of our roses went to our eastern neighbor, Russia, before the war.

Nearly all of our younger men, and even many of the older, right up to fifty years of age, have been all the terrible years involved in the great task of keeping our land free from the Cossack hordes and have been at the front until the very last moment. Many of them have not returned. When the spring (1919) came, we had not many briers to plant; most of us had no two-year-old brier seed lying ready to be sown, but notwithstanding all these difficulties and handicaps today briers are to be had as in time of peace. . . .

As to novelties, we have them all, so far as it has been possible to get them in England and the Netherlands, right down from Columbia to Premier.

Just what has been said of Ophelia, that it will be the mother of a whole family of beautiful roses, the same is the case with Russell, as the tradesman calls it. We have one seedling of it with Lieutenant Chauré; the flowers are bigger still than those of Russell, the color is rose-red, but the marvel with the thing is the growth. It came on ordinary brier stocks up to 3 feet in one shoot.

. . . Next year we shall bring on the market a cross between Richmond and Admiral Ward. It will no doubt satisfy all rose-lovers because at the moment there is not such a rose in the trade that combines free-flowering with such size, shape, and color. The flowers are larger still than those of Admiral Ward, of perfect shape; nearly a dark red Gorgeous. It never turns blue and has the merit of its mother, Richmond, that it is proof against the black spot.

We have another fine thing—a seedling from Adolf Koschel $\times$ Gorgeous. It has brought us a great stride forward on the way to a two-colored red and yellow rose. . . . As the flower grows older its shape is nearing that of a cactus dahlia, and so does the flower make a sensation from whichever side you look at it.

Mr. Kordes tells of a rose sent out from Sparrieshoop in 1917, as “a yellow Frau Karl Druschki,” thus:

Reinhard Bädcker is a seedling from Frau Karl Druschki $\times$ Rayon d’Or. It combines the growth of Druschki with the color of Rayon d’Or. The flower

is perhaps the biggest that roses at the present produce. . . . Everybody who saw it growing here last summer was struck with the giant golden flowers. The leaves are perfectly free from black spot, and had not the frost and the wind torn them off, the plants would be evergreen. . . .

Hoping the sun will shine next year on us true rose-lovers as in the past year, and not on Bolshevism and revolution; with the best rose wishes,

Yours truly, WILHELM T. H. KORDES.

A YEAR OF ITALIAN ROSE CONDITIONS

Our alert and thoughtful rose friend in Italy, the Countess Giulio Senni, whose villa is at Grotta-ferrata, in the Commune of Rome, was in the United States during part of 1919, and made her visit a rose pilgrimage. From her letters some extracts will be interesting. After a visit to our Mount Desert, Countess Senni writes, under date of April 20:

The range of varieties seemed very limited, in the Wichuraianas especially, and many of the best varieties for foliage, like Miss Helyett and Francois Juranville, unknown. I brought back with me a number of plants seen in the Arnold Arboretum and also some roses from Bobbink & Atkins, whose rose-garden in June was the best collection I saw, so well arranged and spaced. . . .

After this mild winter, the climbing roses here began flowering at Easter—Leonie Viennot was especially beautiful in a cloud of warm, glowing pink. Bardou Job and Mme. Alfred Carriere flower together, and are the most beautiful red and white combination one can find. Climbing Marquise de Sinety is shy, but when it does flower is unsurpassed as a yellow, and Duchesse d'Auerstadt is a true yellow, with a lovely tea perfume. . . .

In June, this careful observer writes of many roses we know and of some we do not have. She is fond of the climbers:

Our rose season is practically over. . . . From now until September 20 or later we must count upon no rain at all. This long summer rest to the roses corresponds almost to an American winter; they sometimes lose all their leaves and are quite dormant until the autumn rains begin, and then if the season is mild we have the finest flowers of the year. The great rush of roses began about April 1 this year, and they were uncommonly fine, both in color and size. Now only a few blooms are left, small and very much faded by the sun. As always, Marie Leonida (*Rosa bracteata*) is the latest good climbing rose to bloom, with Ophirie keeping company. Hiawatha is all out, but burnt to a pale pink.

Paul Noel bloomed well for the first time (last year I was away) and I think it is a rarely beautiful Wichuraiana, of a deep, warm coral-pink. Chatillon Rambler was rather a disappointment, but perhaps it is not fair to judge a rose's color in such a year as this when too much heat blanched them. Reine Olga de Wurtemberg is most vigorous, and in a cool climate must be a very fine color. Paul's Carmine Pillar is, alas, fleeting, but beautiful while it lasts. I am going to discard Waltham Climber II, and put Paul's Scarlet Climber in its place. It was under an olive tree and kept its color very well.

I still long for the Wichuraiana rose of Chateau de Clos Vougeot red, however, and am hoping Mr. Easlea's Romeo will be good. Sweet Lavender is very handsome and makes a lovely group at one end of a very rustic pergola with

Veilchenblau (here the hot sun quickly turns it a true violet color), Mme. Auguste Nonin, Ma Surprise, and Mary Lovett—brought from America.

Dr. Van Fleet was beautiful this year; its foliage and flowers were equally fine, and with Tausendschön and White Tausendschön made beautiful branches for cutting. The new Mermaid promises well, too, with large single flowers.

What lovely things have been done in the way of individual flowers on the Wichuraiana strain! There were a few days when everyone's eyes turned to Aviateur Blériot and René André. The former's brilliant orange buds against a blue sky were something never to be forgotten, and René André's lovely warm pink blossoms glowed. As for Francois Juranville, if it were permitted to have only one Wichuraiana on a desert island, like Dean Hole and his Gloire de Dijon, it would be my choice.

A steep bank about seven feet high which was planted at the base with Wichuraianas three years ago, is now completely covered and is a beautiful sight, both in bloom and when the glossy leaves alone cover it.

With a few exceptions I should be inclined to have no Multiflora climbers; the foliage of the others is so much finer and more decorative, and the Multifloras are so easily mildewed. . . .

In January of 1921 is written the surprising news of a mild winter, such as, indeed, much of the United States experienced:

This whole autumn has been so fine, with the exception of a fortnight, that the moment has never come when the roses stopped flowering. The past few days there have been some lovely flowers of Mme. Abel Chatenay, Christine (a truly rich yellow), Augustine Guinoisseau, Ophelia, Pharisaer, Chateau de Clos Vougeot (dearest and most maddening of roses), etc. Ophirie is such a free autumnal that I am thinking of planting it as a bush in shrubberies.

One I brought back from Bobbink & Atkins, Mme. Ghys, has done very well, and flowered in the autumn; its flat open flowers, of an unusual mauve-pink, are very effective when cut.

This is a mad season; the first Sinica Anemone (Cherokee hybrid) is out, and the purple German iris has been blooming for a month; yet any day we may have sudden cold weather which will stop everything.

Roses seem to be very scarce this year. I have written to half a dozen French growers in turn for certain varieties. The roses from Lyon are certainly far more robust than those from Touraine. Guillot's catalogue says theirs are grafted on *R. laxa*, and the English Rose Annual begins to praise it highly. It certainly must be an admirable stock for dry soil, for my Guillot roses of 1915 are in better shape today than many newer ones from elsewhere.

AUSTRALIAN ROSE DOINGS

Our kindly Australian correspondent, Mr. G. W. Walls, sends information as to the great success of the spring show of the National Rose Society of Victoria, held in November last. The illustrations from *The Home Gardener* accompanying the account of the show, indicate not only that magnificent roses are grown in Australia, but that our Australian friends know how to stage them admirably.

From an account of the show published in the Victoria

Argus, of November 4, 1920, the following brief extract is presented:

The president of the society (Mr. James Allan), in the course of a brief address, directed attention to the useful work of the society. A man who made a hobby of rose-growing was a true home-maker, and incidentally a better husband, a better father, and a better citizen. During the war the society gave £342 to patriotic funds, and since then £48 had been given to various charities. The proceeds of the sale of flowers, also the afternoon tea and sweet stalls, were to go to help the Free Kindergarten Union.

His Excellency Sir Walter Davidson (Governor of New South Wales) opened the show. His Excellency said that he was pleased as a visitor to have the honor offered to him. He considered that New South Wales led the way in regard to the cultivation of sweet peas, but for roses he took off his hat to Victoria.

A magnificent display of roses was made, and all classes were well contested. The decorative effect was greatly enhanced by a large pyramid of blooms in the center of the room, arranged by members of the society, and by the special exhibits of roses made.

The names of roses exhibited are familiar, save for certain "Glenara seedlings," among which may be noted Firedragon and Ringlet of distinct character.

In a letter which left Melbourne on September 1, 1920, Mr. Walls tells of a most interesting vote, with its result:

In June last the proprietors of the *Argus*, our leading morning paper, were asked by the National Rose Society of Victoria to take a plebiscite to determine the best twelve roses. So great was the rush of voters that they found it impossible to give individual lists but the result of the plebiscite showed that hundreds of people were in love with the Queen of Flowers and the names and numbers of roses mentioned covered indeed a very wide field and showed the keen interest taken in rose-growing. The result of the plebiscite was as follows, viz.:

	Votes		Votes
Mme. Abel Chatenay	455	General MacArthur	246
Frau Karl Druschki	423	Chateau de Clos Vougeot	235
Miss Marion Manifold	313	Mrs. W. J. Grant (Belle Siebrecht)	235
Lyons Rose	265	Red Letter Day	221
Mme. Edouard Herriot	261	Lady Hillingdon	187
Mrs. Herbert Stevens	252	Maman Cochet. White	185

Second Twelve—

La France	174	Kaiserin Auguste Victoria	99
Mme. Caroline Testout	173	Hugh Dickson	65
Sunny South	157	Lady Battersea	52
Maman Cochet	135	Lady Greenall	46
Joseph Hill	128	Mrs. A. R. Waddell	45
George Dickson	102	Prince Camille de Rohan	45

The Rose Cut-Flower Situation

By WALLACE R. PIERSON, Cromwell, Conn.

EDITOR'S NOTE.—The broad outlook as well as the wide experience of this past-President of the American Rose Society, together with his independence and vigor of statement, make his views of the utmost interest and importance. He produces roses in enormous quantity and of exceptional quality.

The articles following extend the cut-rose view across the continent.

THIS short article is written by a cut-flower man who nevertheless is, to no small extent, interested in garden roses and in roses for pot forcing. There are so many angles to the situation that to understand them one must review the situation from a broad standpoint.

First of all, something has happened in this world of ours, and we who have been in the rose business during the past four years have reason to know that there has been a war in Europe, that this country has had a share in it, and that our output is not of the same value to a nation as some other materials in a case of that kind. We have reason to know that while flowers may heal broken hearts, bring comfort in times of sorrow, as well as joy to the bride, and prove a necessity of life to some, they are not considered as necessities by such bodies as the Fuel Administration and the Railroad Administration in time of war. And what did the war do to roses?

First, the coal situation affected the number grown and the output of those that were planted to a very appreciable extent. Second, transportation became so bad that a serious injury was done the industry, although this condition was only temporary. This season's record shows nearly every rose-grower loaded to his capacity with "spot" coal at any price and "contract" coal disregarded—the new term "distress" coal having come into vogue too late to save the greenhouse industry from paying the abnormal prices of last summer and fall. The short production has been a matter of necessity forced upon the grower by circumstances beyond his control. Third, there has been a decrease in planting, or rather in replanting, during the past three years which is due to the shortage of common labor. This decrease in renewal of stock has also tended to decrease the supply of cut roses. Shortage of coal and failure to properly renew stocks

have depleted markets, and transportation problems have tended to localize the output of the large commercial ranges.

The market conditions, as shown by the leading cut-flower centers, are an interesting study. During the years when all other lines of industry were making war money, the rose-grower was fighting to keep his place from freezing and himself from being adjudged a bankrupt. Then there came a change, and the fall of 1918 brought conditions never before seen in the flower markets. Influenza saved the flower industry from being wiped out of existence. Then came the armistice, and people turned to flowers as they never did before. In the two years that have elapsed, cut roses have been the standby of the flower industry, and have been profitable to the producer. As a whole, the war losses have been regained and the rose industry is on a good solid basis today. National advertising, as carried on by the Society of American Florists, has done more to stabilize business than anything else, and the rose-grower of today has much for which he can thank that Society.

As a whole, the United States is now undergoing the process of deflation. How far this will carry us is yet to be shown, but this winter has proved that roses will sell where monkey-wrenches won't, that people love flowers at all times, and that flowers do much to make the path of life brighter and easier for the troubled business man.

The rose-grower of America was never a business man, and, on the whole, his employees were poorly paid. His product was under-valued, and few realized that it cost money to grow roses. That the rose industry may remain on a par with the making of other necessities of life, that the growing of flowers may be considered as a trade, and that the laborer may be worthy of his hire, is the hope of the grower. If this has been achieved by the producer of flowers as a result of these years, his long wait for recognition will be rewarded. If flowers go back to "before the war" prices, and, with them, the working conditions, the industry will cease to grow and to keep ahead of the increase in population.

Quarantine laws have affected to some extent, but not seriously, greenhouse roses for cut-flowers, unless it be true that Europe intends that Manetti stocks for grafting must make up

for their lost export of outdoor roses. From \$8 per 1,000, in 1914, to \$70 per 1,000, in 1920, is considerable of an increase, and if the nursery syndicates who set these prices in Europe persist in asking beyond reason they will make a quarantine more drastic than "37." America can produce Manetti, and will do so, and this sort of encouragement given to the "infant industry" by French, English, Dutch, and Irish nurserymen will be all that is needed to bring about abundant production.

There has come into the big markets during the past few years a notable difference in what is required in cut roses. In years gone by, the long-stemmed or "special" rose was wanted by the market and in those days the price was, in many cases, much in excess of the price brought by the same grade today. Our markets of today want from twelve- to twenty-four-inch stems, with heads in proportion. The average fifteen-inch rose is the standard grade, and for extra-long stems it is hard to realize a premium that makes the production of this special stock popular with the producer.

Given an average market calling for an average quality, the question of variety must enter seriously into the planting plans of the grower. Briefly, let me review today's roses:

Pilgrim. Rather capricious as to habit of growth. Likes to be grown cool—say 58° for a steady diet. Rose-pink in color, and much brighter when well grown. Much less likely to suffer from black spot when grown cool, and much better in color. Exceptionally fine in many places.

Crusader. Not very good in color. Most crimson roses turn blue when old, and are not good color when they are heavy growers. This is the nature of crimson roses, and Crusader is no exception. It is the best paying rose for the grower, and yet not over-popular with the public. The best crimson rose in commerce until someone gets something better.

Mme. Butterfly. A bright-colored Ophelia sport, and the best of them all, from the producer's standpoint. It grows stronger and flowers more freely than the parent. Good rose for grower, wholesaler, retailer and the consuming public.

Ophelia. Still good and widely grown.

Rose Premier. The best dark pink, and very widely grown.

Columbia. Shares with Ophelia and Rose Premier the honor of being the most universally popular roses in America.

Double White Killarney. Still at the top in white roses.

Mrs. Aaron Ward. This dainty yellow rose is almost alone. Sunburst, grown in limited quantities only, leaves "Ward" the yellow rose of commerce.

My Maryland. A warm-weather rose, but a market variety that has made money for the grower and will make money, due to its wonderful flowering ability.

Milady. Go West to see it right—there Milady leads the list of red and crimson roses. By the way, it seems to be coming East, and will no doubt be welcome.

The Specialty Roses. Hadley, Francis Scott Key, Sunburst, American.

Beauty, and a few others are grown in limited quantities for special markets and need not be considered in sizing up greenhouse roses as a whole.

Let us look ahead for a short space: Montgomery grew 3,000 seedlings last year. From them, Priscilla, a big, long-budded, pink rose will be offered for 1922. He has as many more seedlings on trial this year.

The E. G. Hill Company, the Jos. H. Hill Company, and Fred H. Lemon & Co., all of the Hill family, are growing seedling roses in quantity. From them we look forward to Angelus, a big, fine, white rose for 1922. In Rotarian, Miss Amelia Gude, and Freedom they have others of promise. These are raised by Lemon. The E. G. Hill Company's rose, Hill's America, deserves the name. It looks the part, and they are to be congratulated on it. I understand that 1923 will see it in commerce.

Robert Scott & Son have a big pink seedling, Mrs. Prentiss Nichols, to offer in 1922, and there may be others to make their appearance, from all the tales we hear of the beautiful light pink sports of Premier, the rainbow-colored Ophelia sports, and the Columbia sports of which there are legion, from pink to crimson in color.

No, Quarantine 37, you haven't hurt the cut-rose industry, and you have made the bedding rose industry greater. You have saved us from Dutch roses on Manetti and dog-briar, and have taught us to graft and bud on Multiflora japonica. Your foreign prices have taught us to raise this excellent stock from seed and to grow Manetti from cuttings. Your lesson has been taken seriously by American rose-lovers. They are proud of America, and new American roses will take the place of what has been. Not only the cut-flower grower and buyer, but the American flower-lover, can thank those men who have given us what Europe could not, and that is "American Roses for Americans."

HOW MANY CUT ROSES IN 1921?

Last year the inquiry suggested that a hundred million greenhouse roses had been cut in 1919. That is hardly one apiece for each of us. Let us double it!

Greenhouse Roses This Year and Last

By CHARLES H. TOTTY, Madison, N. J.

EDITOR'S NOTE.—Mr. Totty, the new Treasurer of the American Rose Society, is well known as a most observing and acute rose-grower who keeps on the front line of progress all the time. He discusses the great place the rose has in the commercial flower-market, from the standpoint of definite knowledge.

THE question is asked—"Are the newer roses holding their own in the market as a cut-flower proposition?," and the answer is "Most assuredly, yes; they are not only holding their own, but they are crowding out the last of the old varieties."

Columbia may well be called a standard since it is now in the third year of its introduction and has made good in every market of importance in the country. Premier is considered partly responsible for the almost total disappearance of American Beauty from the market. Its wonderful color, delightful fragrance, luxurious foliage, and apparently every other desirable attribute, combined with its floriferousness and growth, has just about sounded the death-knell of the American Beauty. This last winter it is an undisputed fact that thousands of Premier were sold as American Beauty, and the deluded but delighted buyer was glad of it. American Beauty held on longer than any other of the older roses, but one cannot gainsay that its approach to decrepitude was marked by a tendency to run to blind wood, and the greatly reduced quantity of bloom per plant is responsible for American Beauty's demise.

Premier shows a tendency to black-spot in some sections, which is apparently its only weakness. As grown and marketed in the large flower centers, it is a superb rose.

Last year saw five well-heralded roses introduced to the trade, in the advent of Crusader, Frank W. Dunlop, Mme. Butterfly, Pilgrim, and Mrs. John Cook. The expert growers are carefully keeping tabs on their bench surface to see which variety is the winner in this quintette. Advices from the different growers indicate 90 per cent in favor of Mme. Butterfly as the "find" for 1920. Certainly the demand for stock of this variety would more than indicate that it has made good. Growers at first were skeptical as to whether Mme. Butterfly was a better grower than Ophelia, but there is no question about it now.

Pilgrim, in some sections, seems to be getting popular. There is no doubt about its freedom, but there is also no doubt about its being badly afflicted by that scourge of the rose-grower, black-spot. Expert cultivation will doubtless assist in overcoming this handicap another season.

Frank W. Dunlop did very well in some sections where it has been grown in a cool and rational manner. Some growers who have been growing this Rose from 62° to 65° nights are very sorry that they had anything to do with it, on account of its tendency to mildew when grown too warm—and a rose today that does not carry perfect foliage as well as perfect flowers labors under a very severe handicap.

Crusader sells in the market, but it would not sell were a better colored rose available. Hadley is the best colored of the crimson roses, but does not produce the returns per square foot that Crusader does; therefore the latter is a great improvement in that respect. The color, however, is a little too dark, and the market man complains that it turns blue when kept one or two days. We are therefore still looking for the ideal red rose. Experts are working with this in mind, and no doubt the next year or two will produce something worth while in this color that will be a decided improvement on existing kinds.

Mrs. John Cook is not much of a factor in the market, and it is a question in my mind if it would not have been better to have introduced this as an outdoor rose, where it belongs. John Cook, the introducer of this variety, has given us some wonderful outdoor roses, including Radiance, My Maryland, and others. I believe Mrs. John Cook will make a very fine outdoor white.

Roses still continue to be the leading commodity in the cut-flower market. As a large wholesaler remarked to me a few days ago, "If you take the roses out of the market, there would be practically nothing left to sell." The carnation is still laboring under the handicap of poor culture and a lack of specially good varieties, while the rose has been making all the running. The growers today are hunting for new roses with the same gusto with which they searched for new carnations a few years ago.

Some of the larger markets suffered a little during the holidays on account of the fact that growers had "pinched" their stock, and more high-grade stock was being produced than the

market could assimilate for the moment. Anyone who saw the hundreds of thousands of wonderful roses piled up in the New York wholesale markets the week before Christmas must have been astounded at the magnitude of the business and at the amount of capital involved in such a perishable product. It is, indeed, hardly possible that anyone outside of the trade has any conception of the volume of business done.

The year 1920 was, perhaps, the most prosperous that the cut-flower grower has ever enjoyed. The early part of the season was marked by a tremendous demand, while the intense cold weather decreased the supply, with the result that high prices generally prevailed. The much-increased production was marketed very readily at all times, and throughout the season the business was in an entirely healthy condition.

The year 1921 finds the rose-growers looking forward with confidence and seeing not a cloud on the sky of business.

Now regarding the usual query as to "What is new for the coming year?" we hear all sorts of rumors, some of which will materialize, and possibly some will not.

White Ophelia is the novelty of the year, and all who grow and appreciate Ophelia will doubtless take to this sterling new kind. As a matter of fact, we understand the introducer is practically sold out. Just where White Ophelia will stand as soon as Lemon's new white Angelus comes out in 1922 is an open question which time alone can decide.

Columbia is sporting profusely, and there will perhaps be two or three sports distributed during the coming season, with also a climbing form. We may expect Columbia to stay with us for some years yet.

A new seedling which I understand has been registered as "Hill's America" is making a marvelous record in its second year, which, as a rule, is the year that a rose seedling either goes backward or forward. There are also rumors of a fine new seedling rose from New England, all of which points to progress. A new variety stimulates the public attention and keeps it interested and busy buying.

The rose business was never in a better condition, or with more promise for the future than today. We can be decidedly optimistic for the future.

Commercial Roses as the Wholesaler Sees Them

By S. S. PENNOCK, Philadelphia, Pa.

EDITOR'S NOTE.—No man in the East is better fitted than past-President Pennock to give us a carefully critical glimpse over the commercial rose-field. His establishments in New York, Philadelphia, Baltimore, and Washington put him into unique relation with the largest and most critical markets and the most advanced growers.

AS a commercial flower, the rose stands head and shoulders above every other flower grown today, and as far as one can see now, there's nothing in sight to supplant it. In the commercial roses we can go back probably fifty or sixty years, when there were only a few varieties, with a new sort added now and then. Interest has steadily increased until today we have more than one rose enthusiast devoting all his energies to giving the rose world something better each year.

Killarney, a European introduction of several years ago, was so much easier to grow and bloomed so much freer, that before the growers realized it they were overdoing it. A store man would buy mostly Killarney, pink and some white, as there was very little else to buy. Some markets, of course, had more variety than others. One year in particular the Philadelphia market was especially overworked with Killarneys.

This is a situation that the growers today need to guard against with Columbia and Premier. If a customer comes into a retail store and finds just two or three varieties of roses, there is certainly not the encouragement to purchase that would exist if there were a larger variety to choose from.

Both Columbia and Premier are fine roses. There's no question about it—wonderful flowers, with fine foliage, good growers; roses that give splendid satisfaction. Columbia, for the year round, is probably the better of the two; but Premier, during the midwinter months, forges ahead with its wonderful foliage and large, well-shaped buds.

We have Pilgrim, which when it first came on the market last summer, was not received with quite the favor that was hoped. However, as the season progressed and the weather became

cooler, it became more of a favorite until, at this writing, the first of March, it is one of our best roses. I believe it is a splendid rose for about nine months of the year, but not a particularly good hot-weather rose, although the growers may be able to so grow it during the hotter part of the year that it will do better. It is a good keeper, holds its head up, and has a very attractive color. The two-tone color gives it a class by itself.

American Legion, which is to be called "Legion" because of a silly objection by the organization of that name, is coming out this year, and seems like a very attractive rose; but every new rose has to be tried out before it can be determined whether it will be a success. I like it very much; whether from a grower's standpoint it will equal or be better than our present roses will have to be determined.

Dunlop, here in the East, has not proven the success it was hoped. It seems to be better in warm than in cold weather.

It was thought Crusader would supersede Hadley, but it has neither the color nor the holding qualities of Hadley, although it is a larger rose, and I understand is a better and easier grower. It will turn dark after it is cut a day or two, which is enough to condemn it among retailers. It may be that this could be improved upon by the grower, as some roses have been in the past. Meteor, for instance, was found to be a success in a warmer temperature.

Hoosier Beauty is still grown by some, but not nearly so much as in the past. Some growers call it a money-maker.

Milady is and has been grown more extensively in the West than in the East. While it is not a recent introduction, some of the eastern growers are taking it up again, and it looks as if it was coming back. From the standpoint of a producer, there is nothing in the red rose line to touch it.

Russell is still a favorite, and I see no decrease in the plantings of those who do it well. In fact, most of the eastern successful Russell growers are increasing rather than decreasing. This, for an all-year-round rose, is the best in its class today—a good summer rose, a good winter rose and a good fall and spring rose, although most growers claim it does not bloom well in winter.

Francis Scott Key is a wonderfully fine warm-weather rose, in a class by itself. It has large, fine flowers on good stems, but

goes absolutely to sleep during the wintertime, and a great many growers on that account feel it is unprofitable. I am sorry not to see it grown more extensively. In the fall some wonderful flowers are produced.

Mrs. George Shawyer is now very little grown, and apparently will soon be a rose of the past. Sorry; it has many good points.

My Maryland is still favored by a number of growers, and very successfully by those who go into it whole-heartedly and use it as a bread-and-butter rose the year round. It has its place.

Richmond is grown by very few, and more as a Christmas cropper than anything else.

Sunburst we are sorry to see almost out of the market. A new yellow rose is needed very badly, for we today do not have a good yellow variety that is grown extensively. Neither Ophelia nor Butterfly fill the place for a yellow. Let us hope that some of our enthusiasts in rose-breeding will come along with a good commercial yellow rose; something on the Sunburst color and shape of bud, with Pilgrim stem.

It is regrettable to notice the tendency to drop Ophelia. It is a splendid rose, and one that I should be very sorry to see the growers discard. Some say Butterfly will replace it, but it seems to me there is room for both roses. Butterfly is so distinct from Ophelia that they could be sold by any up-to-date retail store without one interfering with the other.

Mrs. Aaron Ward also seems to be passing. It was a great favorite—a beautiful little rose, which probably made as much of a sensation when it was first put on the market as any rose we have ever had.

The only good, first-class white rose that we have available today, commercially, is Double White Killarney. It is still holding its own, although Angelus may supersede it. I do not know much of Angelus, only having seen it in an exhibition way, when it certainly impressed all present. The old few-petaled white is not nearly as satisfactory from a dealer's standpoint as the double roses. It is not as good in the wintertime, nor in the summertime; in fact, it is not as good any time of the year.

Kaiserin Auguste Victoria is still a wonderfully good summer rose, but, unfortunately, the growers have almost entirely

dropped it, claiming that it was not profitable, by reason of its season being too short.

Jonkheer J. L. Mock is another rose that is passing. It is not a winter rose, and bruises very easily; mainly on that account the growers have dropped it. It is an excellent grower and good keeper, barring its bruising habits.

Among the little or "debutante" roses, Cecile Brunner and Old Gold still hold their own. A number of other small roses have been tried, but, after the first year or two, are discarded, and I believe very few outside of these two are grown successfully.

Last, but not the least, we come to American Beauty, which has been on the market now for about thirty years, and today stands by itself. It is noted with great regret that so many of the growers are dropping it, or decreasing the space devoted to it. It is still a wonderful rose if well grown. What can you get that will give the effect of a dozen fine, long-stemmed American Beauties? Twenty-five or fifty of any other rose would hardly make as good a showing. Unless it continues to bring a good price, it will not be grown by anyone in a few years, which will be a great pity.

Some recent changes in our establishment have brought to light the rose prices of 1897 and 1898. The lists are interesting indeed, as showing the change of varieties and the much lower prices then prevailing. Only American Beauty carries through in place and partly in price; the Easter figure for 1897 was from 25 to 50 cents per bloom, and the Christmas price of 1898 ran from 50 cents to \$1.25 each. There has been a great improvement in the variety and the quality of commercial roses since those days, and a corresponding advance in their cost.

Would it not be a fine thing for the rose-men to change Major O'Keefe's taking phrase, "Say It with Flowers," to "Say It with Roses"? We *can* say it with beautiful roses, and each year they are better and more beautiful.

THAT PACIFIC NORTHWEST ROSE
TRIP FOR 1922

*Are you planning to make the pilgrimage, Reader?
Write the Secretary; he will keep you posted.*

Cut Roses Around Chicago

By W. J. KEIMEL, President National Flower Growers' Association,
Elmhurst, Ill.

EDITOR'S NOTE.—This clear-cut showing of the extent and importance of the cut-rose industry in the Middle West adds to the completeness of the statement in this Annual. Few, the Editor believes, realize either the investment or the magnitude of the business involved in the production of roses every day in the year. Few, either, appreciate the enormous improvement in varieties and in their adaptability, resulting from the intensive work and the sheer genius of American rosarians. It should be noted that perfection for greenhouse culture is almost an "acid test" of rose fitness, and some of our very best garden roses—as, for example, Ophelia, Columbia, Mrs. Charles Russell—had their first tryout under glass.

Mr. Keimel is head of an important national organization of producing florists.

THE commercial growing of roses for cut-flowers has increased very extensively during the last ten years in the Middle West, especially around Chicago, so that at the present time at least 50 per cent of all glass area devoted to floriculture is planted with roses for the growing of cut-flowers.

The great increase can be dated from the time of the dissemination of such varieties as Richmond and the Killarneys, soon followed by Ophelia and its sports and progeny, and by Sunburst, Mrs. Aaron Ward, Milady, Mrs. Charles Russell and others. With the advent of these varieties, the rose-grower found that he was able to bring his rose into crop very nearly at any specified time, and in this way he has been able to have heavy cuts of roses at the time when the demand was greatest. This has helped to a great extent to overcome the losses caused by too large supplies of roses at times when there was little demand, and has put the business of commercial rose-growing upon a more successful scale financially.

For a number of years before the introduction of these new varieties, almost all the space devoted to roses was planted in Bride, Bridesmaid, and American Beauty, until the public began to lose interest in the rose to a large extent for the want of variety. Now this has been overcome, so that it is possible to satisfy the most discriminating customer in regard to color or variety.

In the last three years a new strain of roses has made its



PLATE XIV. MME. CAROLINE TESTOUT Roses in Portland, Ore. (Courtesy of Mr. Jesse A. Curry.)

(See "Pacific Northwest Rose Shows," page 114)

appearance, which are mostly seedlings of Ophelia crossed with the best of our present commercial varieties, and this new strain is fast crowding out the older varieties. Columbia was the first of this strain, and was soon followed by Premier. The first practically displaced Killarney, and now Premier bids fair to displace, not only Mrs. Charles Russell but also the old veteran, American Beauty.

These two varieties are the first of a large number of seedlings originated by E. G. Hill, and we may expect others as good and better to follow in the next few years. Mr. Hill's standards are high, his patience notable, and his achievements of the greatest importance to the commercial grower.

The roses grown for cut-flowers around Chicago and the Middle West are as follows, quantities in order named: Columbia, Premier, Milady, Ophelia, Mrs. Charles Russell, Sunburst, American Beauty, White Killarney, Mrs. Aaron Ward, Mme. Butterfly, Crusader, Cecile Brunner; also, in smaller quantities: Montrose, Victor, Golden Rule, Dunlap, Hoosier Beauty, Pilgrim and Prima Donna. Among the new varieties to be disseminated this and the next year, some of the most promising are White Ophelia, Golden Ophelia, Angelus, Miss Amelia Gude, Red Columbia, and Legion, besides many others that are being tried out and will be heard from in the near future—if they make good!

In regard to the glass area devoted to the growing of roses for cut-flowers, while the exact statistics are not yet at hand, it is safe to state that in the Middle West it will cover not less than ten million square feet, requiring an investment of more than \$10,000,000, and employing about 2,000 people at an annual operating expense of somewhere near \$6,000,000.

This gross cost is divided approximately thus: for labor, \$2,000,000; for fuel, \$1,600,000; for fertilizer, \$400,000; for rose plants, \$400,000; for insecticides, \$100,000; for repairs, maintenance and miscellaneous expenses, \$1,500,000.

With the continued improvement of the rose and with the help of the publicity campaign carried on all over the country, there is no doubt but that the commercial growing of roses will continue to show a steady increase in the future as it has in the past.

Commercial Roses in the Pacific Northwest

By THOMAS C. LUKE, Portland, Ore.

EDITOR'S NOTE.—This account of the cut-rose situation in the Northwest indicates the country-wide scope of the rose commercially.

THE greenhouse' roses of the Pacific Northwest, and particularly of Portland, are like our outdoor roses, in that they are far superior in brilliancy of color and abundance of fragrance to those found elsewhere in the country. This is due to the wonderful rose climate, there being alternate spells of bright sun and overcast sky, just such as the roses need to bring forth their wonderful tints. While these climatic conditions are particularly true of Portland, the same kind of climate in a measure prevails in Seattle, Tacoma, and Vancouver. Portland is the distributing center for Oregon and most of Washington.

To realize the wonderful brilliancy of the coloring in inside-grown roses in Portland, one only has to visit the floral shops of that city. I have the honor of being proprietor of one of them, and after visiting the big places in the East and the Middle West, I can say, without fear of contradiction, that in my shop I can show better roses, that is, fuller blooms, of better color, and with better lasting qualities, than I have found elsewhere.

In the Pacific Northwest we grow practically all the standard and well-known roses, with no special drive on any one variety. American Beauty has little vogue in this section, and it is not the social rose or the feature rose that it is elsewhere. Mrs. Charles Russell is always popular and in great demand. Of our dark red roses Hadley is the favorite. For a yellow rose, we have May Martin, a Portland sport of Ophelia, and it is a rose with great commercial value. A local light pink rose is Mrs. John C. Ainsworth, which is striking in form and lasting qualities.

The great demand for the trade is for a good white rose, and one of our largest growers is arranging this spring for a big planting of the new Angelus. He will also introduce to the Pacific Northwest another novelty, named "Rotarian."

The greenhouses around Portland have growing about 70,000 rose plants, which are sufficient to supply a community of this size. It is estimated that the average receipt of roses in Port-

land is about 7,000 per day. In the wintertime the cut runs down to as low as 3,500 to 4,000, in midseason goes up to 10,000. Plans are being made by several of the growers to increase their planting, and it is expected that next year Portland will have about 100,000 plants producing for the commercial trade.

At Seattle the largest producers specialize in Ophelia, which has a big vogue in that section.

Roses and the Retail Florist

By THOMAS ROLAND

President Society of American Florists, Nahant, Mass.

EDITOR'S NOTE.—A message to the retail florist is here presented, and it is from the active head of the great organization that has long advanced the interests of the florists in America. Mr. Roland is himself a notable grower of potted roses for exhibition.

I WONDER if those carrying on a general local retail business realize the great possibilities for increasing their business through the sale of rose plants suitable for growing in the garden? Theoretically, everybody loves the rose; and I am quite sure many more persons would grow and enjoy roses were it possible to more easily obtain good plants for the garden locally. There are many who are unaware that roses can be successfully grown in any garden or yard where tree-tops do not shade or tree-roots do not interfere. Moreover, I am firmly convinced that no other hardy garden plant returns as much in pleasure, in proportion to expense and trouble, as does the rose.

There are many good hardy garden rose varieties today, so that with a balanced collection (one not necessarily requiring a large garden), it is easily possible to be able to have roses in bloom every day from June to November, even in most parts of the New England States. The charm of greeting in the garden an old or a new rose friend, almost any time, makes the rose unique as a hardy everblooming garden plant.

I really believe that if every florist growing bedding plants would also carry in stock hardy roses, suitable for general garden purposes, that not only would it prove profitable from a business standpoint, but there would also be the pleasure and satisfaction of knowing and feeling that we were also doing our part to put "A rose in every home and a bush in every garden."

Rose-Growing in France After the War

By M. CHARLES SIRET

Secretary Société Française des Rosiéristes, Lyons, France

EDITOR'S NOTE.—These first words of official rose greeting from France, so sorely stricken in the fight for humanity, will be welcomed by all who remember where the best of our roses have originated. M. Siret is also Editor of *Les Amis des Roses*, the French rose publication, and the only one in the world devoted entirely to the rose.

THERE is no garden in France, whether of the rich or of the poor, in which the rose has not the place of honor it deserves. Indeed, French rosarians have acquired universal fame by their patient research and by the careful manner in which they grow roses.

When the war broke out, rose-growers, as all their fellow-citizens, had to leave their work to defend their country against the invaders. Many thousands of roses ready for the winter sale of 1914-15 were thus abandoned. The largest rose nurseries have been deprived of labor, and often their owners were mobilized. The amateurs, for the most part either mobilized or distressed by the dreadful events, did not care to buy or to plant any roses.

Nevertheless, few nurseries have been given up. Old men who were not mobilized and the mothers, wives, and daughters of our gallant soldiers would not let their work of many years be lost. They worked and pruned the roses, hoping the war would last a short time. Unfortunately, these hopes were not realized; so they went on planting the stock. Indeed, these women and girls replaced the absentees in budding and grafting roses, doing, in a wonderful manner, the work which until then had been considered as too difficult to be done save by trained specialists.

They have now been rewarded for their work, as the amateurs who had not given up their collections and who wished to replace roses which had been frozen during the sharp winter of 1917-18, ordered roses again.

Thus, when the war ended and the rose-growers came home, they found their rose resources reduced, but sufficient to start them working again. Because of the scarcity of stocks

and their high price, they could plant only small quantities in the spring of 1919; many were demobilized too late in the season to be able to plant at all. This explains the scarcity of roses this season, for it was only last spring that they could plant larger quantities of stocks, and even now they are far from being as large as before the war.

Labor is more scarce in horticulture than before the war. Many nurserymen have, alas, given their lives for their country. Furthermore, many gardeners, attracted by the high wages workmen receive in factories, and by the eight-hour day's work—which cannot be extended to agriculture—have gone to the factories.

Thus it is with few and inexperienced men that our rose-growers have had to start their effort to regain the important place they had in 1914. The task is not easy, as they have now to contend with the American and English rose-growers who are working carefully and scientifically toward rose improvement, and who, stimulated by the results obtained, will no doubt continue their present worthy efforts for the amelioration of the rose.

Though the war has changed many of our old ways, we will not plant less roses. What other flower could be substituted? I would not dare to propose any substitution of their favorite flower to readers of the American Rose Annual.

To all its other unique qualities, it can be said of the rose that it is the least expensive of all good plants and shrubs. If, at present prices, the making of a bed of roses or of a rose garden seems costly, it should be noted that this expense is to be divided over the several years in which the planting will be effective with only the necessary expenditure for cultivation.

In closing this short account it is my duty to do homage to the women, who, during five long years, have helped by their work and their intelligence to keep the nurseries going, making thus the work of reconstruction easier after that dreadful war. The French Government has shown its gratitude to them in awarding some of them the *Merite Agricole*, but they were so numerous that many were not made known, and so did not receive the reward they deserve.

New Rose Trials at Bagatelle

Translated by M^{lle}. THÉRÈSE TURBAT, Orleans, France

EDITOR'S NOTE.—We are again greatly indebted to M^{lle}. Thérèse Turbat, daughter of the noted French rosarian of that name, for the translation of the report of the Bagatelle New Rose Trials, written for *Les Amis des Roses*, the journal of the Société Française des Rosiéristes. Judging from the list of awards, it appears that the Continental rose-growers have produced many exceedingly attractive and worth-while varieties for this year's trials and next year's as well. In our mutual love for the "Queen of Flowers," Europe does not seem very far from us, and a new rose there interests us almost as much as one at home.

IT has been the custom, heretofore, to have the meeting of the Jury for the New Rose Trials at Bagatelle between the 16th and the 20th of June, but owing to the early blooming of the roses in 1920 it was necessary to hold the event on June 7 instead of June 18, as previously announced. At that time, not only most of the roses were in bloom, but the quality and size of the blooms seemed superior to those of previous years.

Together with M. Autrand, Préfet de la Seine, the following members of the Jury met at Bagatelle: M. Deville, president of the Commission des Beaux Arts au Conseil Municipal de Paris, and also president of the Jury; MM. Barbier, Cochet-Cochet, Leveque, Nonin, Pernet-Ducher, French rose-growers; M. Abel Chatenay, vice-president of the Société Nationale d'Horticulture de France; M. Bois, professor at the Museum; M. Gravereaux, proprietor of La Roseraie de l'Hay; Messrs. Alex. Dickson, Turner, and Wallace, English rose-growers; M. Jonkheer J. L. Mock, president of the Société des Rosiéristes Hollandais, M. Leenders, the well-known rose specialist, both of Holland; and J. C. N. Forestier, Conservateur des Promenades de Paris.

There was a large number of new roses received in 1919, despite the difficulties of all sorts, and many of them are very beautiful, making it exceedingly difficult for the Jury to award the Gold Medals and the Certificates.

The Gold Medal was awarded to Souv. de Claudius Pernet, a very large rose of pure chrome-yellow, borne on rigid stem. Its extreme vigor, the great abundance of the full double flowers, and its lovely yellow color make it a very remarkable rose. M. Pernet-Ducher gave it the name of his elder son, who fell

gloriously on the battlefield. Another admirable rose, bearing the name of the second son that the war has taken from this unfortunate father, will be seen at next year's trials.

Another yellow rose, *Benedicte Seguin*, originated by Pernet-Ducher, has extremely nice buds and very large petals, and was awarded the First Certificate. In color it is very different, being golden yellow, and the foliage is dark rich green. The stems are long and strong. It is really more of a Hybrid Tea than a Pernetiana, and has the delicate penetrating fragrance of that class, which is remarkable in a yellow rose so deeply colored.

The Gold Medal for foreign roses was awarded to *Frances Gaunt*, originated by Alex. Dickson & Sons. This is a vigorous growing Hybrid Tea, not very tall, but producing continuously large, semi-double, salmon-yellow blooms.

Certificates were also awarded to the following:

President Parmentier, H.T. (Sauvageot.) Colonel Leclerc $\times$ Le Progrès. It is a vigorous grower with an abundance of large, full, pink-apricot flowers on strong stems.

La France Victorieuse, H.T. (P. Guillot.) Shown by the Roseaie de l'Hay, is a very large, full flower of tender pink, with darker center. The petals are very large and the stems strong.

Comtesse de Cassagne, H.T. (Guillot.) Lovely buds and large, full flowers, slightly pink inside and ivory-white outside. The blooms are borne on strong stems and have a pronounced Hybrid Tea fragrance. It seems to be a vigorous grower and continuous bloomer.

Mermaid, H. Brac. (W. Paul & Son.) *Rosa bracteata* $\times$ a Tea rose. This interesting hybrid again commanded much attention. The foliage is like that of *R. bracteata*, brilliant green and persisting in winter (it was not injured by hard frost). The blooms are large, single, pale yellow, with a Tea rose fragrance. This rose is the forerunner of a new and interesting class.

The number of certificates being limited to five this year, many very interesting roses did not receive awards, but mention will be made of a few of them here. The two Hybrid Teas from Leenders are especially interesting.

Hortulanus Albert Fiet, H.T. (Leenders.) Beautifully formed buds and flowers; salmon with yellow reverse, which is the same color as the large bud; when completely open changes to a light salmon-pink; fragrant. Very floriferous.

Mme. Annette Aynard, H.T. (Leenders.) Large, full, creamy white flowers with petals edged pink. Like many of the large roses it does not always open well.

Yves Druhem. (Buatois.) The dark, velvety red flowers are borne on long stems and are very fragrant. While this rose is not very large, its lovely dark color, long, strong stem, and good habit make it very desirable.

Golden Pirrie. (Dobbie.) A whitish yellow sport of Lady Pirrie. The bud

when about to open, is a very pretty shape. The flowers are semi-double, with large, satiny petals. A perpetual bloomer.

3A-1026. (Merryweather.) This unnamed variety is single, golden yellow when opening, with very large petals and rigid stem. A perpetual bloomer.

T. F. Crozier. (Hugh Dickson.) A vigorous-growing rose with full flowers on long, strong stems. The bud is yellow and the flowers white when fully open; not very large.

Evaline, Poly. (Prosser & Son.) Orleans $\times$ Rayon d'Or. Produces an abundance of small light pink flowers with rolled petals.

Pax, H. Musc. (Pemberton.) Seems to be a perpetual bloomer with semi-double, pure white flowers having a distinct carnation perfume, like that of *R. moschata*.

Mrs. Fred Poulson (Therkildsen.) Unfortunately, the rose is too small, but the color—bright pink, shaded with yellow—is unique.

Among the new roses sent last autumn and this spring, to be judged definitely next year, there are some which seem worthy of particular mention:

Souv. de Georges Pernet. (Pernet-Ducher.) Flowers pink, slightly shaded yellow, on strong stems. A vigorous grower with beautiful disease-resistant foliage. It produces an abundance of beautifully formed buds and large, full flowers.

An unnamed hybrid. of Sunburst $\times$ Rayon d'Or, originated by Looymans.

Huguette Vincent. (Chambard.) Seedling of Mrs. Edward Powell $\times$ an unnamed variety. Large, semi-double flowers of very brilliant geranium-red on long, strong stems. A profuse and perpetual bloomer.

Etoile de Hollande. (Leveque.) Large, semi-double flowers of a very beautiful scarlet-red.

Mme. Alfred Ponnier. (Bernaix.) A very vigorous and perpetual flowering rose with white blooms. The buds do not seem full enough.

Sea Foam, H. Brac. (W. Paul & Son.) White, shaded slightly with cream.

No doubt there will be many other varieties produced this year which will make their debut in the spring of 1921. Unfortunately, hindrances of all sorts have made it increasingly difficult to enter the foreign roses in the Bagatelle trials. For instance, the four new roses sent by Howard & Smith, Los Angeles, Calif., arrived last year in a miserable condition, having been on the way three months. Of the four plants, three were finally induced to grow. One bore an abundance of half-full yellow flowers with Tea rose perfume; another, semi-double salmon-yellow flowers on plants that seemed none too vigorous; and the third seems to resemble Los Angeles, with fuller flowers and smaller, slightly pinker petals. Owing to the poor condition in which they were received and their late planting, these roses will be placed in next year's trials, so that the Jury may see them in their normal foliage and growth.



PLATE XV. The English Gold-Medal Roses of 1920

1, Una Wallace; 2, Vanity; 3, Mabel Morse; 4, Marjorie Bulkeley; 5, Princess Victoria;
6, Mrs. John K. Allan; 7, Courtney Page; 8, Rev. F. Page-Roberts; 9, Mrs. John Inglis.
(Photographs by courtesy of Courtney Page, Hon. Secretary National Rose Society of
England. See opposite page.)

The New Gold-Medal Roses of 1920

By COURTNEY PAGE

Hon. Secretary National Rose Society of England

EDITOR'S NOTE.—Mr. Page has again most kindly sketched for the members of the American Rose Society from his standard of knowledge and authority, the prize-winning English roses of 1920, and it is to his kindness also that we owe the pictures (marked †) of nine of these “top-notch” roses. Few American rose-growers appreciate the critical care and attention characterizing rose culture in England, or the orderly manner in which the merits of the new roses are judged. (See Plate XV, facing this page.)

The National Rose Society of England is the leading rose organization of the world, and its publications are interesting and important. Membership may be attained by mailing an international money order for a half guinea (about \$2.50) to Mr. Courtney Page, 25 Victoria St., Westminster, S. W. I., London, England.

I HAD been looking forward to seeing a record number of new varieties of roses staged for an award during the past year, but, alas! weather conditions quite upset all calculations. Our raisers have the roses right enough, and truly marvelous are their new creations as seen in their trial-grounds, but they all aim at getting the coveted award, the Gold Medal given by the National Rose Society, and unless they have their blooms just in the right condition for staging on the appointed day, the novelty is kept back.

Our summer here last year was abnormal, for after a hot, dry spring, we experienced a long spell of cold and sunless days; in fact, from June until the end of September, the temperature never once reached normal, and, consequently, the roses suffered.

Incidentally, I notice my old friend, Mr. E. G. Hill, has been saying some nice things about our English weather. Well, when he comes over again to see us—which I hope will be soon—he will probably find he will need a sunshade.

I have explained before in your 1920 Annual, that new varieties of Roses exhibited in England are placed under two sections:

EXHIBITION ROSES are those best suited for staging separately in boxes, or vases, or as specimen blooms only; while

GARDEN AND DECORATIVE ROSES are those best suited for general garden cultivation. The first type, including those suit-

able for exhibition purposes only, and usually with short, stunted growth, is now fast disappearing, and our hybridizers are now giving more attention to the type of rose that is good alike for both exhibition and garden purposes.

The award of a Gold Medal or Certificate of Merit of the National Rose Society is open to any new novelty, provided six blooms at least are staged, together with a plant as growing in the ground. The awards are made at any of the National Rose Society's shows, by a specially appointed committee, to any novelty grown and staged under the prescribed conditions, and any novelty that receives the award of a Gold Medal is thereafter known as a "Gold Medal Rose." Comment is sometimes made on the way this coveted award is given, but the primary object of the award is to encourage the raisers to produce new and improved varieties, in plant as well as in flower; and it is quite certain that had the award been for the rose alone, we should not have in our gardens the lovely roses of today.

At our 1920 Summer Show, when making their awards, the New Seedling Rose Committee had the valued assistance of Mr. E. G. Hill. It would be interesting, Mr. Editor, if you could persuade him to give his recollections; he knows something, I can assure you! [Mr. Hill has been persuaded, see page 154.—ED.]

It is an interesting sight to watch the raisers staging their blooms. They know full well that the New Seedling Rose Committee will have to decide on what they see before them, and not as the rose might be seen growing in their nurseries. Their first consideration will be, "Is it a novelty worthy of consideration?" Having decided that point, the next is, "Is it an improvement, or advance, on existing varieties?" Then is asked, "Does the plant indicate a reasonably vigorous habit of growth?"—an important point. "What are its qualities as to freedom from mildew?" "Is it sweet-scented?" "Is it a 'nodder'?", meaning, does it hang its head. These searching inquiries are made according to the section to which it belongs.

The Certificate of Merit is given when a novelty staged does not quite come up to the high standard required by the New Seedling Rose Committee, and is an indication that they wish to see that variety again. These two awards are now so greatly

prized by the raisers of new roses, that very few new varieties of merit are sent out without one or the other of these awards attached to their names. They are the "hall-mark" for quality.

I am sure you will not accuse me of bragging when I tell you that your Mr. Hill said, on seeing the application of the standards by the Committee, "I think the judging of new varieties of roses here is faultless," which we appreciated as a graceful compliment.

A Gold Medal was awarded to each of the following novelties during 1920. [Those followed by the dagger sign (†) are illustrated in plate XV, facing page 149.—EDITOR.]

Princess Victoria, H.T.† (S. McGredy & Son.) A vigorous-growing rose of the Queen Alexandra type. The blooms are large and globular, with big, broad petals, and are very sweetly scented. The color is a deep red, overlaid with scarlet. Although not perhaps so bright a color as the Queen Alexandra, it has more of the Hybrid Tea in it, and for that reason it should be a good bedder. I have it in my garden, and it promises well. Princess Victoria very graciously gave the Rose her name. In commerce.

Rev. F. Page-Roberts, H.T.† (B. R. Cant & Sons.) A fine rose of a vigorous habit, with good shaped blooms, which are carried erect on long, stiff stems and are very sweetly scented. The color is an orange-yellow, becoming lighter at the edges of the petals. It was stated to be an excellent exhibition and garden rose, and the plant and blooms staged certainly gave one that impression. In commerce.

Mrs. John K. Allan, H.T.† (Hugh Dickson.) An enormous bloom, fully up to exhibition standard. The petals are shell-shaped, and the color a pale salmon-pink. It is one of those loose-petaled roses after the type of Colleen. The plant exhibited was of vigorous growth and free from mildew. In commerce.

Marjorie Bulkeley, H.T.† (Hugh Dickson.) Had this rose been staged ten years ago, we should have gone into ecstasies over it. Nowadays the fashion rightly trends more toward those varieties which not only give a good bloom for exhibition purposes, but also can be relied upon to produce a quantity of good blooms when the shows are over. In Marjorie Bulkeley we not only have a very fine, perfectly formed ideal and sweetly scented exhibition bloom, with a high pointed center, but also a fine garden variety, of vigorous branching habit. The color is a pale flesh-pink, tinted orange. The dark green healthy foliage of the plant exhibited showed no sign of mildew. It received a Certificate of Merit at the Summer Show.

Lady Inchiquin, H.T. (Alex. Dickson & Sons.) When we saw this rose at the Summer Show, its delicate orange-cerise coloring attracted a host of admirers. The blooms staged there were all wired, and many thought it was the type of rose so aptly described as "a nodder." Later we saw it in all its beauty, and the perfectly formed blooms were carried on fairly stiff stems. Its coloring will make it an ideal bedder, but the plants exhibited were not quite as vigorous as one would have wished. In commerce.

Ethel James, H.T. (S. McGredy & Son.) A delightful single rose, somewhat after the style of Isobel, but with a much deeper shade of pink. It is a pure Hybrid Tea and a good grower, and will become a favorite with the ladies for table decoration.

Yvonne, Wich. (Frank Cant & Co.) This is a very lovely shell-pink colored rose of the Lady Godiva type. A vigorous grower, with large, upright trusses of bloom, lasting well, it will soon find its way into every garden. The exhibit, staged in a large vase, was quite one of the features of the tent. It has also been awarded the Cory Cup as the best new seedling climbing rose originated by a British raiser during the year. In commerce.

Hawlmarm Scarlet, H.T. (Alex. Dickson & Sons.) A fine bedding rose, best described as an improved Colonel Oswald Fitzgerald, the color being scarlet, shaded maroon, and almost identical with that variety, but the habit of growth is more vigorous and free, while the blooms are very sweetly scented. An ideal bedding rose.

Adonis, H.T. (Bees, Ltd.) A lovely pale yellow rose of vigorous habit. The blooms are large, well-formed, and sweetly scented. After the style of Mrs. David McKee, but to me a distinct improvement on that variety. The plant exhibited was free from mildew, and the dark olive-green leathery foliage would tend to show it was tolerably free from that trouble. A first-class garden rose.

Una Wallace, H.T.† (S. McGredy & Son.) A fine rose of vigorous, upright growth. The blooms, which are well formed, and sweetly-scented are carried on long, stiff stems. The color is a bright old rose, with deeper center. A rose we all want, and one that will show up well under artificial light. It will prove invaluable both for exhibition and garden alike.

Courtney Page, H.T.† (S. McGredy & Son.) I quote the description of this fine rose from *The Garden*. "Described on the charge sheet as good for bedding, garden, and exhibition. Full, highly built, tapering to a point, the recurving petals of exceptional substance and quality, the newcomer has richly fragrant flowers of a lustrous and brilliant dark crimson that defy description. The accompanying plant possessed an exceptionally robust and convincing habit of growth. Confident of its excellence and high attributes, the raisers have demonstrated these thing unmistakably in the name by which henceforth this magnificent novelty will be known."

The secondary award, or what I have explained as a suspense award, is the Certificate of Merit, and that honor was given in 1920 to:

Padre. H.T. (B. R. Cant & Sons.) This rose appeared to me to be more of a Pernetiana than a Hybrid Tea, but the new varieties are now so very mixed that their classification becomes more and more difficult. It is a good-shaped cerise-cherry colored rose, fragrant, and apparently a good grower. In commerce.

Constance Casson. H. P. (B. R. Cant & Sons.) A beautiful many-colored rose. On looking at my notes I find I have it as a glorified Gorgeous, but with petals of more substance, with a pretty golden shade and sweetly scented. The exhibit attracted a deal of attention, and the rose was thought by some to have been worthy of the higher honor. The plant shown was vigorous, with bright healthy foliage probably fairly free from mildew. In commerce.

Mrs. Curnock Sawday, H.T. (Elisha J. Hicks.) A vigorous grower, with bright green foliage. The well-shaped blooms carried erect on long stems, are sweetly scented. The color is a pleasing shade of pale blush-pink. A good garden rose. In commerce.

J. G. Glassford, H.T. (Hugh Dickson.) A very large, good-shaped bloom, with high-pointed center and very sweetly scented. The color is a rich carmine-crimson. The plant exhibited was very vigorous and free from mildew. Good alike for exhibition and garden purposes.

Captain Kilbee-Stuart, H.T. (Alex. Dickson & Sons.) A vigorously growing variety, with dark olive-green foliage. The blooms are very large, of good shape, with broad petals, somewhat after the style of Edward Mawley. The color is a rich velvety crimson, shaded violet. A useful rose.

Lady Maureen Stewart, H.T. (Alex. Dickson & Sons.) This is a very fine vigorous-growing garden rose. The medium-sized, sweetly scented blooms are abundantly produced, and of good shape, though perhaps the petals are a trifle short; stems erect. Color, vivid scarlet-crimson. Will make a fine bedder.

Betty Uprichard, H.T. (Alex. Dickson & Sons.) Another of those many-colored roses so difficult to describe. One writer has it: "The outer face of the petals is orange-scarlet, inner face soft pink, shaded with apricot toward the base." I have it as a mixture of salmon and orange. The blooms are small and rather thin, but they are most attractive, having a distinct verberna scent. The plants shown were vigorous and free from mildew. A very promising rose.

Koster's Orleans, Poly. Pom. (W. Easlea.) Perhaps best described as an improved Orleans rose, the color being a very much brighter shade of pink. I noticed, however, that the small, semi-double flowers had a tendency at times to show their center. It will be a very fine bedder. In commerce.

Mabel Morse, H.T.† (S. McGredy & Son.) A fine, vigorously growing bedding rose of a rich golden yellow color. Moderate size; sweetly scented. The foliage is bright, glossy, and free from mildew. Probably more of a Pernetiana.

Vanity, H. Musk. (Rev. J. H. Pemberton.) A very pretty semi-double rose, carried on very long stems in enormous loose clusters—certainly the largest cluster rose we have. The color is a bright rose, shaded carmine at the edge of the petals, which, combined with the golden stamens, makes the blooms most elegant. The habit of growth is very vigorous. Recently I saw *Vanity* in the raiser's garden. The large bushes, with their dark olive-green foliage, free from mildew, were very fine. Its perpetual flowering qualities, and its sweet scent, will make *Vanity* a favorite as a specimen shrub. In commerce.

Ariel, Per. (Bees, Ltd.) A rose of the Independence Day type, with somewhat similar coloring, but the blooms are much larger and better shaped, and are sweetly scented. The habit of growth is upright and vigorous. The cut-back plant shown was of exceptional growth. A valuable garden addition.

Mrs. A. J. Wylie, H.T. (Hugh Dickson.) This is, perhaps, the largest rose of the year, and somewhat reminds one of Mildred Grant. The large petals are of great substance, well over five inches long, and fragrant. The color is a delicate pale salmon-pink. It will prove most valuable for exhibition.

Earl Haig, H.T. (Alex. Dickson & Sons.) This rose reminded me very much of the old variety Earl of Dufferin, the color, dark crimson, being almost identical with that old rose when seen at its best. The growth, however, is sturdy and upright; the blooms are well formed, but perhaps a trifle thin; sweetly scented. Will be useful for both exhibition and garden purposes.

Coral Cluster, Poly. Pom. (R. Murrell.) This is a sport from the old Orleans rose, which it resembles in every way except color, which is a delightful shade of coral-pink. It is quite a new shade amongst the Polyanthas, and will become a popular variety for bedding and pot culture. In commerce.

Mrs. John Inglis, H.T.† (S. McGredy & Son.) This rose may perhaps be described as an improved H. V. Machin. The blooms are of a good shape, and carried on stiff stems. The color is a rich crimson, lasting well, and the flowers are very sweetly scented. It will be valuable both for exhibition and garden.

The best roses of the year are Una Wallace, Marjorie Bulkeley, Lady Maureen Stewart, and Courtney Page.

English Roses Through American Eyes

By E. G. HILL, Richmond, Ind.

EDITOR'S NOTE.—In Mr. Page's story of the new English roses, he alludes to the presence, while they were being judged, of our best-loved American rosarian, "Gurney" Hill, whose roses belt America in flower fraternity. It is a great pleasure to present Mr. Hill's own candid observations on his visit of 1920 to England and his judgment of some of the roses he saw there.

Without Mr. Hill's knowledge that it was to be done, a portrait of that fine and friendly rose-worker is inserted in this Annual as Plate XVI, facing page 156. In the 1916 Annual reference was made to his then half-century of rose service. Born in England, in 1847, he has been an American since 1851, and in his home city of Richmond, Ind., since 1865. He has seen all the roses of all the world pass across the stage of public inspection, and has seen many of his own receive applause. Gen. MacArthur, Mrs. Theodore Roosevelt, Richmond, Rhea Reid, Robin Hood, are among the winners. Columbia and Premier, grown from coast to coast and by the tens of thousands, are his achievements, and the great work goes on.

To visit his wonderful establishment, and to see the perfection of growth which makes an immense greenhouse a literal forest of roses, towering over one's head, is an experience one rose-lover at least will never forget.

THE Regent's Park show was especially interesting, exceedingly so on account of the large number of "debutantes" introduced at this great English rose festival.

The tent containing the seedling roses was filled to its capacity, the public evincing keen interest in this special feature of the show. It was a delightful surprise to an American to note the long waiting-line seeking entrance to the Seedling tent. Here could be seen entries from the two Dickson firms, from Samuel McGredy & Son, all of Ireland, and from the leading English rose-growing establishments, the Irish firms predominating in the number of entries.

With true Old-World courtesy, your humble servant was invited to join the Committee on Awards to Novelties, which courtesy was greatly appreciated, as it afforded a wonderful opportunity to size up the English method of judging, and also to get the viewpoint of our English friends as they decided on the relative merits of the entries, and saw to it that they filled the necessary qualifications for entry. Latitude was allowed as to the number of blooms of a variety, also as to shape and style of receptacles in which they were shown. Supports were used in a few cases to hold the blooms erect, which, it seemed to me was a mistake. From the American standpoint a weak neck is a fatal

defect; the recognition of such varieties and their later entry into commerce and import into America has led to misunderstanding and disappointment. On this point, we think our stand is well taken that a stiff stem is one of the essentials. A rose that hangs its head is like a person who cannot look one in the face.

Another British requisite in a novelty asking recognition is the presentation of a plant as well as the cut bloom. This, of course, gives a good idea of the vigor and habit of the variety. Roses grown under glass were not allowed to compete—or at least that was my impression. A majority vote of the committee decided the fate of a variety.

I think it is much easier for a novelty to receive a certificate or a gold medal under the rules of the National Rose Society of England, than it is for an American seedling to gain like recognition in this country under our American method of judging. If Edel, with its fine size and form and purity of color had a stiff stem it would be a treasure, and if Col. Fitzgerald with its gorgeous color would only hold its head erect, it would stand as the long-looked-for crimson-scarlet. Some of the newer varieties seen at Regent Park and also at the Leeds Provincial Show of the National Rose Society, possess fine forms, unique coloring, and are certainly, from the garden standpoint, worthy additions to our list of select and distinct kinds:

Princess Victoria, a Gold Medal variety, is very pronounced in its color—orange-vermilion. *Betty Uprichard* was one of the finest on the show table. *Clara Curtiss*, a distinct clear yellow, is a rose of great promise. *Victory*, one of McGredy's, is a fine scarlet seedling of extra good form and immense size. *Una Wallace* is a clean-cut pink of strong growth and great freedom. *Courtney Page* is a fine crimson with long, pointed bud; if this variety has enough petalage, it should make good.

W. E. Wallace (Hugh Dickson) looks to be a very promising yellow. As seen at Totty's place in February it looked very good, and has possibilities.

Marjorie Bulkeley (Hugh Dickson) is orange in color, and was very conspicuous, both on the exhibition table and in the open.

Mrs. John K. Allan (Hugh Dickson) is of pink, shading to rose; a strong-stemmed variety and one of the attractions of the Regent Park show.

Lady Maureen Stewart (Alex. Dickson & Sons) is of strong enough growth and should certainly command attention on account of its rich orange-scarlet color.

Hawthorn Scarlet has color, as the name indicates; this variety, as shown at Leeds, certainly out-distanced all in its class on account of its startling color.

Souv. de Claudius Pernet is certainly M. Pernet's masterpiece. It is a strong grower and has been described as brilliant sunflower-yellow, which is not far wrong. Surely this is the finest of the entire Pernetiana type.

Eastwood (W. Easlea), of velvety crimson, should prove an ideal and effective bedder as it is dwarf in growth, very free in bloom, with flowers of unusually beautiful form.

I noted other fine seedling reds at *Eastwood*, and doubt not that several of them will make their way to the front.

The novelties I have here mentioned were quite outstanding among the many hundreds viewed at the shows and at the nurseries. Owing to the excessive rains at blooming-time, it was impossible to pass upon their merits intelligently. The rose-growers of the United Kingdom have great numbers of fine seedling roses to select from, and the near future will undoubtedly find many old varieties superseded by new and improved garden roses.

The kindness shown to myself and to my good friend Mr. Charles H. Totty will ever remain a bright spot in our lives. We were not vain enough to appropriate this kindly greeting and warm-hearted welcome to ourselves alone, for we know that it was intended as a testimonial of their good will for the American brethren of their own profession. What shall we say for the noble-hearted Secretary of the National Rose Society, the Hon. Mr. Courtney Page, who was unfailingly thoughtful and kind on every occasion, and who so signally honors the office he so ably fills? The National Society is more than fortunate in its Secretary.



*The rose was given to Man for this:
He, sudden seeing it in later years,
Should swift remember Love's first lingering kiss,
And Grief's last lingering tears.*

*Or, being blind, should feel its yearning soul
Knit all its piercing perfume round his own,
Till he should see on Memory's ample scroll
All roses he had known.*

—ISABELLA VALANÇY CRAWFORD (Canada)

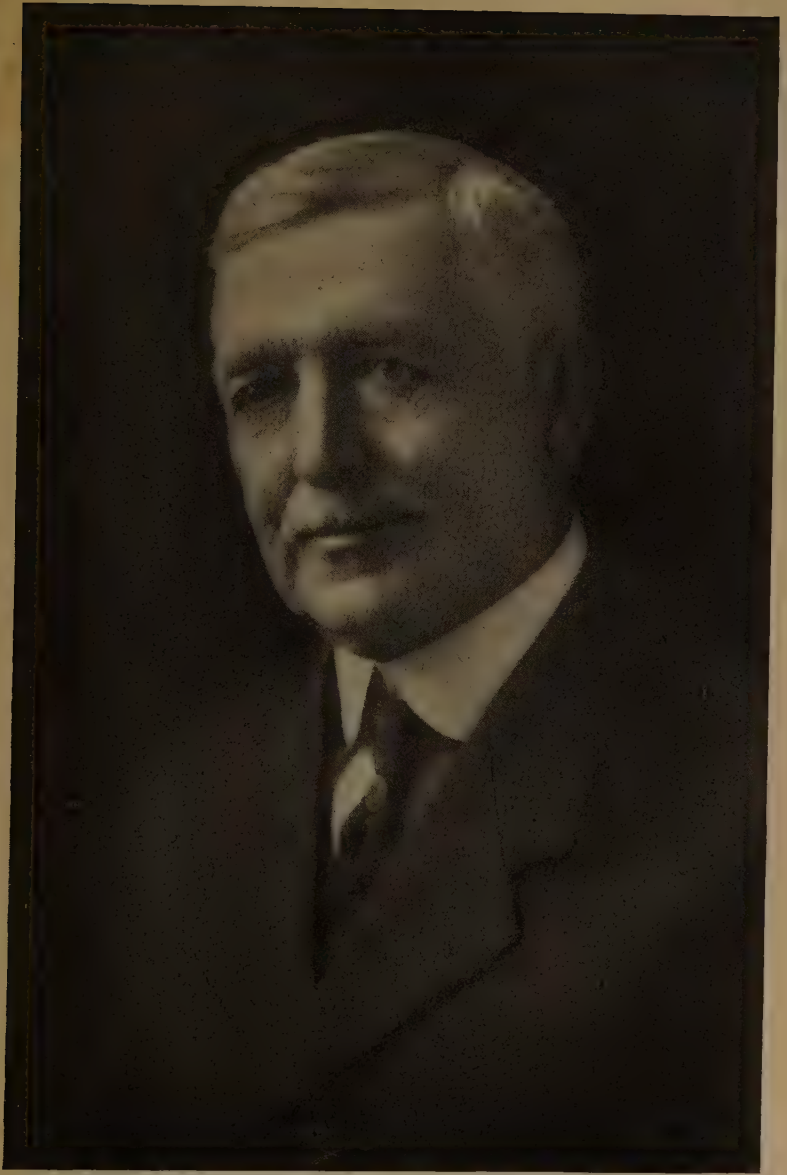


PLATE XVI. E. GURNEY HILL, originator of Columbia and many other good roses
(See page 154)

The New Roses of All the World

AN EDITORIAL SURVEY

CONTINUING the world inquiry instituted last year, there is here presented what is believed to be a reasonably complete list of the new roses introduced to commerce or described by their originators since the 1920 Annual went to press. Persistent and patient letter-writing has been required to obtain the really valuable information here subjoined.

Originators everywhere have been provided with the Official Record Card of the Society as a basis for the accurate descriptions we have desired to obtain. The presence of an asterisk (*) before a variety name indicates a description written from this card record.

The Index following is inclusive for 1920 roses, but omits any mentioned in the last Annual. To avoid duplication, descriptions are printed once only, cross-reference giving access always to the main description.

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GREAT BRITAIN

Adonis. See page 152.

Archie Gray, H.T. (Hugh Dickson, 1920.) Flower large, finely formed. very full, double, high center, edges of petals nicely reflexed; deep crimson, heavily flamed with brilliant velvety scarlet. Foliage abundant, dark green. Vigorous; free-branching.

**Ariel.* See page 153.

Betty Upprichard. See pages 153, 155.

Bronze Bedder, H.T. (W. Paul & Son, 1920.) Bud bronzy yellow, tinted with crimson; flower large, single, bronzy yellow. Free bloomer.

**Callisto*, H.Musk. (Pemberton, 1920.) Type, Moonlight and Danæ. Flower of rosette form, golden yellow, very lasting, borne in clusters along the stem. Foliage abundant, leathery, dark green. Vigorous; bushy; blooms abundantly and continuously all season; fine in autumn. Hardy.

**Capt. Kilbee-Stuart.* See page 153.

Charm, H.T. (W. Paul & Son, 1920.) Bud reddish orange, shaded with pink and copper; flowers borne in clusters, coppery yellow. Vigorous; upright; very free bloomer.

Clare de Escofet, H.T. (Easlea, 1920.) Flower very large, full, double, high center, delicate flesh-white. Vigorous; upright.

Constance Casson. See page 152.

Coral Cluster. See page 153.

Courtney Page. See pages 152, 155.

Dinah, H.T. (W. Paul & Son, 1920.) Flower rich, deep crimson, with darker shading. Free-flowering.

**Earl Haig.* See page 153.

Elizabeth Cullen, H.T. (Alex. Dickson & Sons, 1921.) Bud long-pointed; flower medium size, dark crimson; fragrant. Foliage dark green. Vigorous; bushy; free bloomer. Gold Medal N. R. S.

Eleanor Henning, H.T. (Easlea, 1920.) Flower large-petaled, lovely salmon-pink. Vigorous; free and continuous bloomer.

Esmé, H.T. (B. R. Cant & Sons, 1920.) Flower large, creamy white, flushed rosy carmine edges, center soft primrose. Abundant bloomer.

Ethel James. See page 151.

Ethel Somerset, H.T. (Alex. Dickson & Sons, 1921.) Flower very large, full, high center, shrimp-pink; very fragrant. Vigorous; bushy. Superior to Mrs. George Shawyer.

**Florinda Norman Thompson*, H.T. (A. Dickson & Sons, 1920.) Flower large, full, deep globular, very lasting; delicate rose on pale lemon, deeper at base of petals, reflex of petal edged $\frac{1}{4}$ inch with pure shell-pink or flesh on creamy lemon; borne on stiff stems; Persian Tea perfume. Foliage leathery, glossy. Vigorous; profuse bloomer.

**Glory of Hurst*, D.Poly. (Hicks, 1921.) Orleans $\times$ Jessie. Type, Orleans. Bud ovoid; flower medium size, semi-double, full, open, cherry-red, very last-

*All varieties starred are described from data supplied by originators on American Rose Society's Official Rose Cards (see page 112, 1920 Rose Annual).

ing, borne in clusters on long, strong stem. Foliage abundant, small, leathery, glossy, rich green, disease-resistant. Blooms profusely and continuously. Hardy.

**Golden Butterfly*, H.T. (Therkildsen, 1920.) Seedling of Old Gold. Bud long-pointed; flower medium size, double, very lasting, borne singly or several together on long stem; apricot-yellow with carmine shading; fragrant. Foliage abundant, medium size, leathery, glossy, dark green, disease-resistant. Moderate, bushy grower; blooms profusely and continuously all season. Hardy.

**Havering Rambler*, Mult. (Pemberton, 1920.) Type, Crimson Rambler. Flower small, double, rosette form, almond-blossom pink, very lasting, borne in large clusters on long stem. Very vigorous; blooms profusely. Hardy.

**Hawthorn Crimson*, H.T. (A. Dickson & Sons, 1920.) Bud long-pointed, maroon veined crimson; flower semi-double, crimson-scarlet; Tea perfume. Vigorous; profuse bloomer.

**Jersey Queen*, H.T. (Le Cornu; intro. by Jersey Nurseries, Ltd., 1920.) Mme. Melanie Soupert $\times$ Queen Mary. Bud long-pointed; flower medium size, very double, cupped; flame-orange, edges of center petals flushed delicate carmine-rose, base and reverse of petals clear lemon-chrome. Foliage abundant, rich green, disease-resistant. Vigorous; bushy; blooms profusely. Hardy.

J. G. Glassford. See page 152.

Koster's Orleans. See page 153.

Lady Inchiquin. See page 151.

**Lady Maureen Stewart*. See pages 153, 155.

Lady Mond, H.T. (W. Paul & Son, 1920.) Bud long-pointed; flower very large, symmetrical, deep cream-color, outer petals shaded with rose. Vigorous.

Mabel Morse. See page 153.

**Maid Marian*, H.T. (Therkildsen, 1920.) Type, La France. Bud long-pointed; flower large, carmine-rose, reverse of petals silvery pink. Foliage abundant, large, leathery, light green. Vigorous; blooms all season. Hardy.

Manifesto, H.T. (S. McGredy & Son, 1920.) Bud long-pointed; flower large, exquisitely formed, soft pearly flesh-pink, tinged salmon and apricot.

**Margaret Horton*, H.T. (Hicks, 1921.) Type, Sunburst. Bud long-pointed; flower large, full, double, open, high center, apricot-yellow, lasting, borne singly on long stem; fragrant. Foliage abundant, large, leathery, glossy, light green, disease-resistant. Vigorous; dwarf; blooms profusely and continuously.

Marjorie Bulkeley. See pages 151, 155.

**Miss Connor*, H.T. (A. Dickson & Sons, 1920.) Flower full, cupped, delicate canary-yellow on unfading lemon-yellow; Persian Tea fragrance. Foliage glossy leathery. Vigorous; upright; profuse bloomer.

Miss M. J. Spencer, H.T. (Hugh Dickson, 1920.) Flower large, full, double; clear bright golden yellow of even shade throughout; very fragrant. Foliage bright green. Vigorous; free-branching; blooms abundantly and continuously.

Mrs. A. J. Wylie. See page 153.

Mrs. Fred Cook, Per. (Easlea, 1920.) Flower well-formed, light terra-cotta, edged silvery white.

**Mrs. Fred Poulson*, H.T. (Therkildsen, 1920.) Seedling of Edith Part. Type, La France. Bud long-pointed; flower large, vivid pink, borne singly or several together on long stem. Foliage abundant, large, leathery, rich green. Vigorous; upright (2 to 3 feet); blooms abundantly all season. Hardy.

**Mrs. Hornby Lewis*, H.T. (Hicks, 1921.) Gorgeous $\times$ Mme. Melanie Soupert. Type, Gorgeous. Bud long-pointed; flower large, very double, full, high center, orange-yellow, lasting, borne singly on long stem; fragrant. Foliage abundant, large, leathery, glossy, dark bronzy green, disease-resistant. Vigorous; dwarf; blooms profusely all season.

Mrs. John Inglis. See page 153.

Mrs. John K. Allan. See pages 151, 155.

Mrs. Tom Paul, H.T. (Hugh Dickson, 1920.) Bud long-pointed; flower large, full, double, saffron-yellow suffused with pink, borne on long stem. Vigorous; upright; blooms abundantly and continuously all season.

Mrs. W. A. Lindsay, H.T. (Hugh Dickson, 1920.) Bud long-pointed; flower medium to large, exquisitely formed, delicate peach-pink, heavily zoned golden yellow and fawn; very fragrant. Vigorous; upright; bushy; profuse and continuous bloomer.

Olive Whittaker, H.T. (Easlea, 1920.) Flower rich coppery rose to cerise and salmon.

Peggy Astbury, Per. (Easlea, 1920.) Both bud and flower beautifully formed, soft amber to light yellow.

Pink Bedder, H.T. (W. Paul & Son, 1920.) Flowers in large clusters, rose-pink, with yellow center slightly tinted with mauve as they mature.

Princess Victoria. See pages 151, 155.

Rev. F. Page-Roberts. See page 151.

Sunstar, H.T. (Alex. Dickson & Sons, 1921.) Bud long-pointed; flower medium size, orange, edged and veined vermillion; honey fragrance. Vigorous; bushy; very free bloomer. Gold Medal N. R. S.

**The General*, H.T. (Pemberton, 1920.) Type, Lady Alice Stanley. Bud globular; flower large, double, high center, globular, blood-red, flushed orange, very lasting; strong Damask perfume. Foliage medium size, dark bronzy green. Vigorous; upright; blooms all season, good in late autumn. Hardy.

Una Wallace. See pages 152, 155.

**Vanity.* See page 153.

Yvonne. See page 152.

FRANCE

André Louis, H.W. (Tanne; intro. by Turbat & Co., 1920.) Flower large, full, well-formed, flesh-pink, borne in clusters of 4 to 5. Vigorous.

Etoile de Hollande. See page 148.

Evaline. See page 148.

Fernand Tanne, H.W. (Tanne; intro. by Turbat & Co., 1920.) Flower large, full, double; deep yellow passing to cream-yellow; Tea fragrance. Vigorous.

Georges Clemenceau, Per. (Levêque & Son, 1919.) Flower large, well-formed, very full; bright orange. shaded with umber and carmine. Very vigorous; profuse bloomer.

Huguette Vincent. See page 148.

Irène Bonnet, H.T. (Nabonnand, 1920.) Flower full, reflexed; salmony Hermosa-pink; reverse of petals Eglantine-pink; fragrant. Very vigorous; bushy.

Joseph Baud, Per. (Gillot, 1919.) Rayon d'Or $\times$ unnamed seedling. Bud large, long-pointed, orange-yellow, streaked carmine-red; flower very large, full, double, lasting, golden yellow and orange-yellow, borne singly on long, strong stem; very fragrant. Foliage light green. Vigorous; abundant bloomer.

Julia Bartet, H.T. (Schwartz, 1920.) Lyon Rose $\times$ Georges Schwartz. Bud large, yellow or tinted with copper shades; flower large, full, nicely shaped; canary-yellow, tinted nankeen, passing to Marechal Niel tint. The petals, quilled when opening, are tinted with carmine. Vigorous.

La Champagne, H.T. (Barbier & Co., 1919.) Flower peach-pink, center bright chamois and apricot. Very vigorous; extremely free bloomer.

**La Joconde*, H.T. (Croibier, 1920.) Sport of Arthur R. Goodwin. Bud medium size, globular; flower large, double, open, lasting, pure golden yellow, borne several together on strong stem; fragrance slight. Foliage abundant, dark green. Vigorous; bushy; abundant bloomer.

La Rosée, D.Poly. (Turbat & Co., 1920.) Bud medium size, sulphur-yellow; flower medium size, sulphur-white, passing to pure white, then to tender pink, borne in clusters of 25 to 30 on very long stem. Foliage abundant, glossy, light green, disease-resistant. Vigorous; upright.

Le Loiret, D.Poly. (Turbat & Co., 1920.) Flowers very brilliant pink, passing to tender salmon-rose, borne in clusters of 10 to 15 on very long stems. Foliage disease-resistant. Vigorous; bushy.

Le Rigide, Mult. (Turbat & Co., 1920.) Flower semi-double, pink, borne in clusters of 25 to 30 on long stem. Foliage light green. Vigorous grower.

Louise Griner, H.T. (Chambard, 1919.) Flower very large, double, snow-white, center tinted cream.

Merveille des Jaunes, D.Poly. (Turbat & Co., 1920.) Bud dark coppery yellow; flower very double, bright coppery golden yellow, borne in clusters of 8 to 10. Foliage bronzy green. Dwarf.

Mimi Pinson, Mult. (Barbier & Co., 1919.) Flower clear crimson, passing to purplish rose and then to Paul Neyron pink.

Mlle. Claire Andruejol, H.T. (A. Schwartz, 1920.) Comte G. de Rochemur × Mme. Maurice de Luze. Flower large, full, double, of elegant shape; pale pink, tinted with carmine. Very vigorous; profuse bloomer.

Mme. Alfred Ponnier. See page 148.

**Mme. Gina Demoustier*, H.T. (Laperriere, 1920.) Etoile de France × unnamed variety. Type, Etoile de France, more erect. Bud large, long-pointed; flower large, double, open, very lasting, pure garnet-red, borne singly on long stem; very fragrant. Foliage sparse, medium size soft, dark green, disease-resistant. Very vigorous; upright; abundant and continuous bloomer. Hardy.

Mme. Paul Parmentier, H.T. (Gillot, 1919.) Le Progres × Lyon Rose. Bud large, clear yellow; flower large, full, double, borne on long, strong stem; salmon-yellow with shading of flesh, copper, and daybreak-pink; very fragrant. Vigorous; bushy; upright; profuse bloomer.

Mme. P. Doithier, H.T. (Chambard, 1920.) Bud very large, long-pointed; flower very large, glossy pink, shaded with shrimp-pink, borne on long, strong stem. Foliage dark green. Very vigorous; bushy.

Mme. Pizay, H.T. (Chambard, 1920.) Unnamed variety × Mme. Melanie Soupert. Bud very large, long-pointed, salmon-flesh; flower very large, open, cupped, salmon-aurora in color. Foliage dark green. Very vigorous; bushy; abundant bloomer.

Mme. Raymond Poincare, H.T. (Gravereaux; intro. by Kieffer & Co., 1919.) Flower bright nasturtium-yellow at center, salmon at edges. Vigorous; free bloomer.

**Mme. Victor Rault*, H.T. (Croibier, 1920.) Mme. Melanie Soupert × Lyon Rose. Bud long-pointed; flower very large, double, cupped, lasting, white, tinted salmon, with yellow center, borne singly on long, strong stem. Foliage dark green, disease-resistant. Vigorous; upright; produces an abundance of blooms at intervals all season.

**Paul Lafont*, H.T. (Guillot, 1920.) Mme. Maurice Capron × unnamed seedling. Type, Le Progres. Bud medium size, globular; flower large, double, globular, very lasting, golden yellow, passing to white, with a tint of yellow, borne singly on long stem; slight fragrance. Foliage abundant, large, leathery bronzy green, disease-resistant. Vigorous; dwarf; blooms profusely and continuously. Hardy.

Poète Jean du Clos, H.T. (Gillot, 1919.) Le Progres × Lyon Rose. Bud large, pinkish white; flower large, full, double, high center, borne on long, strong stem; daybreak-pink, shaded salmon; very fragrant. Vigorous; upright; bushy; abundant bloomer.

President Parmentier. See page 147.

President Poincare, H.T. (Grandes Roseraies du Val de la Loire, 1920.) *Beauté Inconstante* × *Mme. Caroline Testout* × *Mevrouw Dora van Tets*. Flower perfectly formed, full, double, high center, globular; reddish magenta, center Tyrian purple, shaded yellow; reverse of petals bright rose, shaded citron-yellow at base, bordered purplish mauve; fragrant. Vigorous.

Souv. de Charles Laemmel, Per. (Gillot, 1919.) *Frau Karl Druschki* × *Soleil d'Or*. Bud very large, ovoid, clear yellow; flower very large, full, double, borne on long, strong stem; golden yellow, streaked orange and shaded pink; very fragrant. Foliage round, rich green. Very vigorous; upright; free and continuous bloomer.

Souv. de Gilbert Nabonnand, T. (Nabonnand, 1920.) Flower full, double, cupped; in summer, cadmium-yellow base, carmine-pink edge; in autumn, very deep begonia-pink and Japanese yellow, base apricot; very fragrant. Very vigorous; profuse and continuous bloomer.

Souv. de Mme. Augustine Gillot, Per. (Gillot, 1920.) *Frau Karl Druschki* × *Lyon Rose*. Bud large, long-pointed; flower large, full, double, borne singly; salmony flesh-pink, base of petals yellowish salmon, reverse of petals silvery flesh-pink; fragrant. Foliage dark green. Very vigorous; upright; free bloomer.

Souv. de Mme. Krenger, H.T. (Chambard, 1919.) Bud large, coppery orange; flower large, full, pure salmon-orange, passing to coppery pink. Very vigorous.

Souv. de Mme. Morin-Latune, H.T. (Bernaix, 1920.) Bud large, long-pointed, saffron-yellow; flower large, full, double, cream-rose, borne on long, strong stem. Vigorous, upright; profuse bloomer.

**Violoncelliste Albert Fourès*, H.T. (Croibier, 1920.) *Joseph Hill* × unnamed variety. Bud medium size, ovoid; flower large, full, double, lasting, orange-yellow, tinted and shaded buff-yellow, borne on medium-length stems. Foliage abundant, rich green, leathery. Vigorous; upright; blooms abundantly at intervals all season.

Yves Druhem. See page 147.

UNITED STATES

**Angelus*. See page 172.

Beacon Belle. See page 172.

Betty Alden. See page 172.

Boston Beauty. See page 172.

Eugenia. See page 172.

Freedom. See page 132.

Hill's America. See page 172.

**Imperial Potentate*, H.T. (Clarke Bros., 1921.) *Ophelia* × *Hoosier Beauty*. Type, *Ophelia*. Bud large, ovoid; flower large, double, open, high center, lasting, borne singly on long, strong stem; fragrant. Color dark rose-pink, slightly lighter on reverse of petals. Foliage sufficient, medium size, leathery, dark green. Vigorous upright grower; blooms abundantly and continuously all season.

**Legion*. See page 172.

Miss Amelia Gude. See page 172.

Mrs. C. W. Thompson, Mult. (U. S. Dept. of Agric.; intro. by Storrs & Harrison, 1920.) Flowers small, full, quilled, very freely produced in dense clusters. Color deep pink. Foliage sufficient, glossy green, like the *Wichuriana* type. Vigorous; blooms profusely over an unusually long season.

Mrs. Prentiss Nichols. See page 132.

**Oregon Ophelia*. See page 172.

Priscilla. See page 132.

Rotarian. See page 172.

Red Columbia. See page 172.

**White Ophelia*, H.T. (Cleveland Cut Flower Co.; intro. by E. G. Hill Co. and Cleveland Cut Flower Co.) Sport of *Ophelia*. Resembles *Ophelia* but stronger. Bud large, ovoid; flower large, well formed, semi-double, very lasting, borne singly on strong, average-length stem; strong, sweet fragrance. Color white, with slight pink tinge in center which disappears when bloom opens. Foliage sufficient; leathery, medium size, rich green. Vigorous, upright grower (3 to 4 feet); an abundant and continuous bloomer.

**W. Freeland Kendrick*, Semi-Cl.H.T. (Capt. George C. Thomas; intro. by Andorra Nurseries, 1921.) Aviateur Bleriot $\times$ Mme. Caroline Testout. Type, Mme. Caroline Testout, but lighter in color. Bud medium size, globular; flower medium size, double, globular, lasting, borne singly and several together on medium length stem; fragrant. Color white, with peach-blush center. Foliage abundant, medium size, leathery, glossy, dark green, disease-resistant. Vigorous upright grower; profuse bloomer (189 blooms) from May to October. Practically hardy; tips freeze. Awarded First Prize for best rose produced by an amateur, and Silver Medal for best rose for outdoor culture at Portland Rose-Test Garden, 1920.

GERMANY

**Adam Messerich*, H.Bour. (Lambert, 1920.) Frau Oberhofgärtner Singer $\times$ (seedling from Louise Odier $\times$ Louis Philippe.) Type, Louise Odier or Mme. Pierre Oger. Bud ovoid, rose-red; flower medium size, semi-double, clear rose-red (like Mrs. Charles Russell); open cupped, borne singly or several together on long, strong stem; lasting. Very vigorous; trailing; bushy; blooms abundantly and continuously from May to October. Hardy.

**Adolph Kärzer*, Per. (Kordes, 1918.) Cissie Easlea $\times$ Sunburst. Type, Cissie Easlea in plant; Sunburst in flower. Bud long-pointed; flower very large, double, open, high center, clear golden yellow, fading lighter in the full sun; lasting, borne singly on long stem; slightly fragrant. Foliage abundant, large, glossy, rich green. Very vigorous; bushy; profuse and continuous bloomer.

**Adolph Koschel*, Per. (Kordes, 1918.) Harry Kirk $\times$ Louise Catherine Breslau. Type, Harry Kirk as a plant. Bud long-pointed, orange-yellow; flower large, very double, open, high center, orange-yellow, very lasting, borne singly on long, strong stem; strong Tea fragrance. Foliage sufficient, medium size, leathery, bronzy green, sometimes black-spots. Vigorous; bushy; blooms abundantly and continuously all season. Practically hardy, but tips freeze.

Apotheker Franz Hahne, A.B. (Dr. Fr. Müller, 1920.) Flowers large, full, salmon-rose on orange-yellow ground. Very free bloomer.

**Edward Behrens*, H.T. (Kordes, 1921.) Richmond $\times$ Admiral Ward. Type, Admiral Ward in plant; Gorgeous in flower. Bud globular, dark red; flower very large, full, double, open, high center, very lasting; velvety crimson, nearly as dark as Chateau de Clos Vougeot—never blues; borne singly on long stem; fragrant. Foliage abundant, large, glossy, dark green. Vigorous; upright; bushy; blooms profusely all season. Practically hardy; tips freeze.

Fliegerheld Boelcke, H.T. (Schmidt, 1920.) Mme. Caroline Testout $\times$ Sunburst. Bud long-pointed; flower small, well-formed, nankeen-yellow with shading of reddish yellow, borne on long, strong stem. Foliage leathery, dark green. Vigorous; upright.

Frau Ida Münch, H.T. (Beschnidt; intro. by Münch & Haufe, 1919.) Buds long-pointed; flower perfectly formed, with high center, very lasting, light golden yellow, deeper in center, borne on long stems. Vigorous; bushy.

**Frau Oberpräsident von Grothe*, H.T. (Löbner; intro. by Lambert, 1920.)

Richmond × Farbenkönigin. Type, La France. Bud ovoid; flower large, semi-double, open, cupped, lasting, rose-orange, with carmine streaks, borne on average length stem; fragrant. Foliage sufficient, medium size, glossy, rich green. Moderately vigorous; upright; bushy; blooms abundantly for three weeks and intermittently the remainder of the season. Practically hardy; tips freeze.

Gruss an Weimar, H.P. (Kiese, 1919.) Type, Frau Karl Druschki. Bud yellowish pink; flower very large, pink on yellowish ground.

**Justizrat Dr. Hessert*, H.T. (Lambert, 1919.) General MacArthur × Tip-Top. Bud long-pointed, carmine-red; flower medium size, high center, lasting; salmon and blush-pink, with red shadings, outer petals yellowish rose; borne in trusses on long, strong stem; fragrant. Foliage abundant, medium size, leathery, rich bronzy green. Vigorous; upright; bushy; blooms profusely all season.

**Mosel*, Mult. (Lambert, 1920.) Mme. Norbert Levavasseur × Trier. Bud red; flower medium size, full, double, very lasting, violet, with reddish violet center; borne on strong stem; slightly fragrant. Foliage abundant, large, leathery, dark bronzy green, disease-resistant. Very vigorous; climbing habit; blooms profusely in June and July; sometimes again in September. Hardy.

**Preussen*, H.T. (Löbner; intro. by Kordes, 1920.) Farbenkönigin × Richmond. Type, Pharisæer in plant; La France in flower. Bud long-pointed, garnet-red; flower very large, full, double, open, high center, very lasting, glowing dark blood-red, borne singly or several together on long, strong stem; strong fragrance. Foliage sufficient, large, leathery, wrinkled, rich green. Vigorous; upright; 2½ feet; blooms profusely all season. Practically hardy; tips freeze.

**Rankende Louise Catherine Breslau*, Cl.Per. (Kordes, 1917.) Sport of Louise Catherine Breslau. Bud ovoid; flower very large, full, very double, open, very lasting; orange, yellow, and scarlet, reverse of petals red; borne several together on long, strong stem; slightly fragrant. Foliage abundant, large, leathery, glossy, bronzy green, practically black-spot resistant. Very vigorous; blooms profusely at intervals from June to October. Practically hardy; tips freeze.

**Reinhard Bädcker*, Per. (Kordes, 1918.) Frau Karl Druschki × Rayon d'Or. Type, Frau Karl Druschki in plant; Rayon d'Or in flower. Bud globular, golden yellow, with scarlet stripes; flower very large, extremely double, full, open, very lasting; clear golden yellow, unfading; borne singly on strong stem of average length; slightly fragrant. Foliage abundant, large, leathery, glossy dark green. Very vigorous; upright; blooms profusely at intervals from June to October. Practically hardy; tips freeze.

Robert Betten, H.T. (Schmidt, 1920.) Frau Karl Druschki × Corallina. Flower large, full, globular, clear shining dark carmine-red, which does not blue. Foliage light green, disease-resistant. Vigorous; upright; free bloomer.

Schöne von Holstein, Poly. (Tantau, 1919.) Flower full, pure Hermosa-pink, better than Mrs. W. H. Cutbush. A free bloomer.

Stadtrat Meyn, Poly. (Tantau, 1919.) Large, full flowers in very large clusters; luminous brick-red. Vigorous.

Victor Teschendorff, H.T. (Ebeling; intro. by Teschendorff, 1920.) Frau Karl Druschki × Mrs. Aaron Ward. Flower very large, full, high center, almost pure white on pale greenish yellow ground, borne on long, strong stem. Foliage glossy, dark green, disease-resistant. Vigorous.

HOLLAND

Cornelis Timmermans, H.T. (Timmermans, 1919.) Type, foliage like Le Progres; blooms like Pharisæer, but more double. Flower very large, full, double, very lasting; clear pink, with deep yellow edge; fragrant. Vigorous; free bloomer.

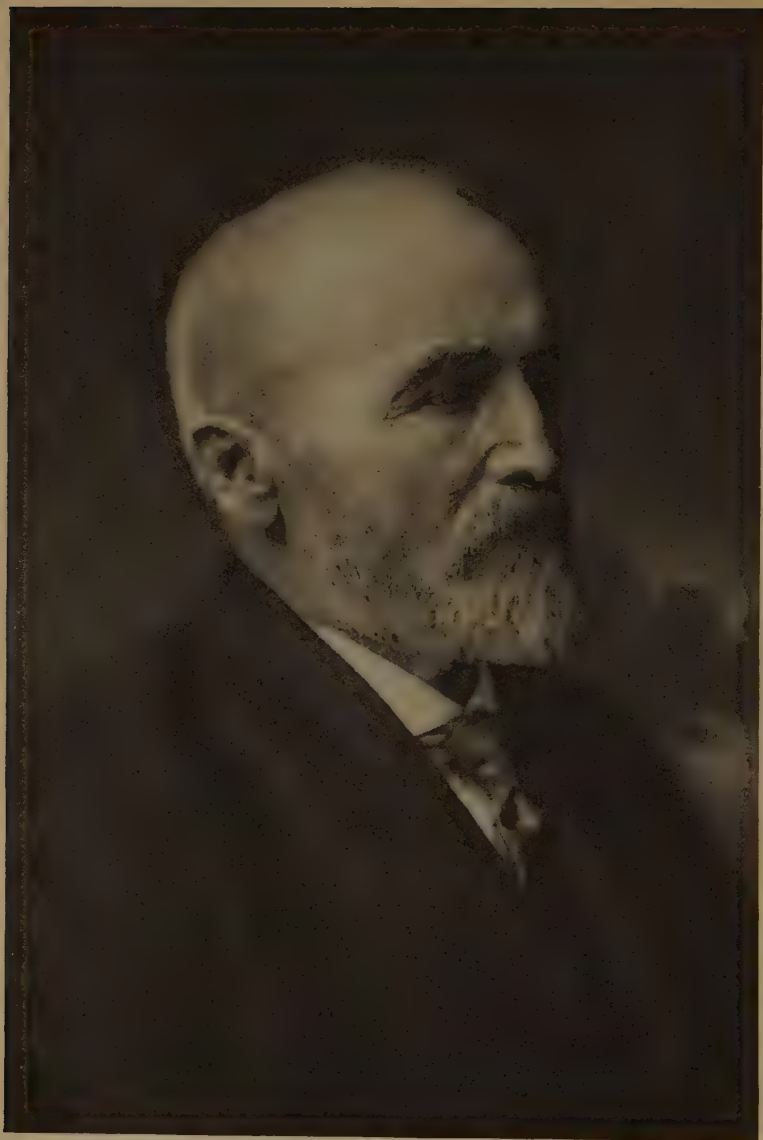


PLATE XVII. JOHN COOK, originator of Radiance, Panama, Mrs. John Cook,
and other good roses

(See Rose Notes, page 166)

Elisabeth Didden, H.T. (Leenders & Co., 1918.) Flower large, full; glowing carmine-red and scarlet; fragrant. Vigorous; free bloomer.

E. P. H. Kingma, Hy. A.B. (Verschuren, 1919.) Type, Mme. Edouard Herriot, but more double. Flower full, double, apricot-color and orange-yellow.

Herfsttooi, H.T. (Van Rossem, 1919.) Flower brilliant purplish red. Vigorous, bushy grower; free bloomer.

Hortulanus Budde, H.T. (Verschuren, 1919.) Flower large, full, double, luminous fiery carmine-red, showing yellow center when expanded; very lasting. Profuse bloomer.

**Ideal*, D.Poly. (Jan Spek, 1920.) Sport of Miss Edith Cavell. Type, Orleans. Bud globular; flower medium size, double, full, open, globular, dark velvety crimson in the open (scarlet under glass); very lasting; borne in clusters on average stem; slight fragrance. Growth moderate; bushy; blooms abundantly all season. Hardy. First Class Certificate at Boskoop.

Jonkheer Ruys de Beerenbroek, H.T. (Timmermans, 1919.) Flower large, well-formed, full, double; light yellow over bright yellow. Vigorous; free bloomer.

Juan Pich, H.T. (Leenders & Co., 1921.) Flower very large, full, double, fragrant, claret-color shaded aniline-red. Vigorous; bushy; free bloomer.

Juan Quevedo, H.T. (Leenders & Co., 1921.) Flower medium size, very full, double, fragrant, cream-yellow. Vigorous; bushy; free bloomer.

Kanarie, H.T. (Verschuren, 1919.) Flower medium size, well-formed, very full, double, clear dark yellow. Vigorous.

Limburgia, H.T. (Leenders & Co., 1921.) Flower large, full, double, glowing deep carmine, reverse of petals lilac-white, fragrant. Vigorous; bushy; continuous bloomer.

Lodewijk Opdebeek, H.T. (Leenders & Co., 1921.) Flower large, full, double; ox-blood-red, reverse of petals Tyrian rose—a new and rare color. Borne on short, strong stem; fragrant. Vigorous; bushy; blooms continually all season.

Mevrouw C. Van Marwyk Kooy, H.T. (Leenders & Co., 1921.) Flower very large, perfectly formed, full, double, white, center Indian yellow, sometimes coppery orange; borne on long, strong stem; fragrant. Very vigorous; bushy; continuous and profuse bloomer.

Miss C. W. Van Rossem, H. T. (Verschuren, 1919.) Flower well-formed, velvety red; fragrant. Vigorous; bushy.

**Miss Edith Cavell*, D.Poly. (Meiderwyk; intro. by Jan Spek, 1917.) Sport of Orleans. Bud globular; flower medium size, full, double, globular, scarlet-crimson in the open (light red under glass), very lasting, borne in clusters on average-length stem. Foliage disease-resistant. Vigorous; blooms profusely the whole season. First Class Certificate at Boskoop and Rotterdam. (This rose has been renamed "Miss Edith Cavell" to distinguish it from the Hybrid Tea rose, "Edith Cavell," introduced by Chaplin Bros. in 1918.)

Nederland, H.T. (Verschuren, 1919.) Flower large, full, double, beautiful red color. Vigorous.

**Perfecta*, D.Poly. (Jan Spek, 1920.) Ellen Poulsen × Merveille des Rouges. Type, Erna Teschendorff, but more vigorous. Bud globular; flower large, full, double, open, globular, scarlet-crimson under glass (dark crimson in the open), very lasting, borne in clusters on long, strong stem; slightly fragrant. Foliage abundant, medium size, glossy, dark green. Vigorous; bushy; blooms very freely all season. Hardy.

Relief, H.T. (Verschuren, 1919.) Kaiserin Auguste Victoria × Sunburst. Flower very large, ivory-white, center yellowish pink.

William Thomson, Poly. (Leenders & Co., 1921.) Flowers salmon-carmine and bright rose. Vigorous; compact; continuous bloomer.

Rose Notes

By THE EDITOR AND OTHERS

 **THE EDITOR** here expresses his deep regret that postage limitations (the Annual must mail inside one pound) have crowded out many "Rose Notes" already in type, as well as much other information. Some of these items will appear in the *Members' Handbook*.

The Portrait of John Cook.—Facing page 165 will be noted Plate XVII, a portrait of a veteran successful raiser of roses in America, Mr. John Cook, of Baltimore. More than three-score years of rose interest have passed over the head of this man, who, if he had done no more than provide America with one of his creations, the good rose Radiance, would deserve well of the nation.

One of the rose sensations of 1920 was Mrs. John Cook, another of the originations of the great Baltimore worker, who has twice earned the Silver Medal of the American Rose Society—once for Panama, in 1913, and again for Radiance, in 1914. Since 1888, when Mr. Cook sent out Souvenir of Wootton, the first Hybrid Tea produced in the United States, his productions have been notable.

The printing of this portrait of one of America's "grand old men" of the rose was arranged without his knowledge, and at the suggestion of President Pyle. With Mr. Hill's portrait, facing page 156 as Plate XVI, there are thus put into permanent record portraits of two great rosarians.



Good Words from France.—The October-December issue of *Les Amis des Roses*, the journal of the Société Française des Rosiéristes, devotes three entire pages to a very complimentary review of the 1920 Rose Annual, written by Mons. E. Turbat, and stating, among other things, "This work is edited with exceptional care and with real artistic talent by Mr. J. Horace McFarland, and is called by him the book of the progress of the Rose for 1920." "A Greeting," by Mr. Edwin T. Meredith, Secretary of Agriculture, is reprinted verbatim, as is also the American Rose Society's Rose Card. French hybridizers are urged to read the excellent articles by Dr. W. Van Fleet and Mr. A. W. Greeley, and the articles by Mr. A. P. Greeley and Mr. Jesse A. Currey are very favorably commented upon. In closing, Mons. Turbat again compliments the Editor of the Rose Annual in these words: "Again I felicitate Mr. J. Horace McFarland for his beautiful piece of work." On another page of this same journal the Editor finds his name listed as an Honorary Member of the Société Française des Rosiéristes, an honor which he greatly appreciates. "Hands across the sea" does not seem to be such a far-fetched term as it once was.



Why not Roses in School Gardens?—Prof. H. C. Irish is the supervisor of the school-gardens of St. Louis. He is studying rose varieties so as to propose to the boys and girls of St. Louis those best adapted for school-garden work. It would seem as if similar study and similar attempt could to great advantage be undertaken in every community in the land where there are school-gardens—and it is an incomplete school system which does not teach the boys about beans and peas, about roses and petunias, as well as about arithmetic and geography. The editor has a notion that the American Rose Society can well take an interest in school-gardens, and he is willing personally to provide a certain prize for competition in rose-growing in any such garden.

Rose Importations in 1920.—It has been the custom of the Rose Annual to report the total importations of rose plants and rose stocks into the United States, and the tables on page 114 of the 1919 Annual and page 154 of the 1920 Annual may be referred to for the history of importation since 1913. For the year ended June 30, 1920, the following report is received:

"Dear Mr. McFarland. At Mr. Marlatt's request I am sending you the following data in regard to roses and rose stocks during the fiscal year which ended June 30, 1920:

Importation of rose stocks:

From England	1,041,700
From France	1,606,525
From Holland	601,411
From Ireland	115,000
From Scotland	150,000

3,514,636

Importation of rose varieties under special permit: Permits granted 32, covering 5,846 plants; Permits imported 19, covering 2,147 plants.

The actual importations of plants were as follows:

From England	290
From France	83
From Holland	855
From Ireland	919

2,147

Very truly yours,

R. KENT BEATTIE,

Pathologist in Charge, Foreign Plant Quarantines."

The operation of the regulation under Quarantine 37, effective June 1, 1919, seems thus to have resulted in an increase in the importation of rose stocks from 3,001,102 in 1919 to 3,514,636 in 1920. Of finished roses the decrease was from an average of 2,289,382 per year from 1913 to 1918 inclusive to 503,938 in 1919, and to 2,147 in 1920, as above reported by Mr. Beattie.

It may be noted that while 32 permits were asked for, but 19 were used, and that the total number of new roses imported is but 2,147.

That importations of roses do not present any real danger of the introduction of injurious insects and diseases is quite obvious. Indeed, the present disposition of the Federal Horticultural Board seems to be to make it easy for the importer of new varieties at least, as may be noted in the following extract from a letter written by Mr. Thomas N. Cook, a careful and interested Massachusetts amateur. He says:

"The latter part of January I received 184 rose plants from France through Washington. They did the work quickly, gave the details of the examination; the plants were all clean, with no pests of any kind, and no fumigation. They did a beautiful job of repacking and shipping, and when we opened them here, they were in fine order."



What Constitutes a Professional Rose-Grower?—Mr. Jesse A. Currey, of Portland, Ore., proposes the following definition of professionalism:

"A professional rose-grower, under the rules and regulations of the American Rose Society, is one who makes his or her living or has as his or her principal business for profit the breeding or growing of roses, rose-stock, rose-buds, or rose-wood for sale to the public, also all florists or nurserymen actively engaged in such business. Horticulturists connected with or holding positions with colleges, experimental stations or the U. S. Department of Agriculture shall not be considered or classed as professionals."

How Roses Are Handled in Quarantine.—Application to Dr. B. T. Galloway, Plant Pathologist of the Bureau of Plant Industry, as to the actual practice of handling rose importations brought this courteous response:

December 30, 1920.

Dear Mr. McFarland: . . . Mr. W. B. Wood of the Federal Horticultural Board, who is in direct charge of the inspection work, has kindly supplied me with certain tabulated data showing the number of shipments of roses, their condition on arrival, treatments, etc. It appears that sixty-six permits have been issued for roses since Quarantine No. 37 went into effect. All but three or four of these shipments have been received. *It has not been necessary to treat any of the shipments with insecticides or fungicides and no such treatments have been made.* In a few instances crown gall was found on the roots, but after removing these galls the plants were allowed to go to the owners. In one or two of the very first shipments plants were sent in with balls of earth about their roots. These plants were badly packed and had been on the road a long time. They were in bad shape and owing to the presence of the soil one shipment was destroyed. All this year the roses have been arriving in much better shape, and the last six or eight shipments have been good. The records show that these lots were not treated in any way. Three shipments of roses for three different firms have arrived recently. Here is what happened to them:

Boxes were delivered to the inspection rooms by the express company about 10 A. M. Boxes were immediately opened and plants were found to be carefully and well packed in peat and sphagnum moss. Varieties were checked from lists at hand and inspections finished in about two hours. Plants were immediately carefully repacked without treatment of any kind and broker notified that the boxes were ready to go forward. Express company called the following day for the boxes and they went forward to owner. At the same time a report was sent to the owner by the Federal Horticultural Board. This report contained (1) a list of the plants, (2) where grown, (3) statements as to condition on arrival, (4) how packed, (5) date received, (6) date inspected, (7) date shipped to owner and (8) treatment, if any.

In conclusion I wish to say that from personal observation and study I feel free to express the opinion that roses passing through here have in no wise been injured. The unpacking and packing is all done with the greatest care in well-protected rooms. The inspections have been made carefully and finished promptly and there have been no treatments with insecticides or fungicides, gases, liquids, or powders.

B. T. GALLOWAY.



How to Import Roses Under Quarantine 37.—At the Editor's request, the following statement of procedure was supplied for the 1921 Annual, under date of March 3, 1921.

Dear Mr. McFarland: To make an application for a special permit to import new varieties of roses proceed as follows:

(1) Secure from the Federal Horticultural Board, Washington, D. C., a copy of the regulations and application blank form 207.

(2) Furnish the information called for on pages one and three of form 207, designating specifically the varieties desired; sign the agreement at the top of page four and forward the application to the Federal Horticultural Board.

(3) After receiving the permit execute the bond which is sent with it and return it promptly to the Federal Horticultural Board. Either personal bondsmen or a bonding company will be accepted.

(4) With your order to your foreign shipper send the permit number and instruct him to have the roses inspected and certified by his foreign authorities in the usual manner and to ship them by express to the Federal Horticultural Board, Washington, D. C. for inspection, inscribing the permit number on the outside of the package and warn him that the roses must be free from earth.

For small shipments it is not necessary to engage a customs broker to clear the material through customs.

Very truly yours,

R. KENT BEATTIE,

Pathologist in Charge, Foreign Plant Quarantines.

Yours very truly,

The Central Rose-Test Garden Committee has supplied a brief report, too late for presentation in this Annual. It is hoped to print it in the immediately following "Members' Handbook."

Much important rose material has suffered the same fate. The Annual must mail within the weight of one pound, because of postage and financial limitations that are hard (for the Editor, at least!) to endure.



The Death of John M. Good.—Springfield, Ohio, has long been famous as the greatest rose-manufacturing city in the world, the production of its green-houses running way into the millions of plants. John M. Good was a pioneer in this great rose industry.

His death at the age of sixty-seven, after a year in poor health, is a misfortune to the city which had honored him by election to the mayoralty and in which his business connection was of great importance. He had extended his rose efforts toward the production of outdoor roses in the South, and was an important factor in the operations of the United States Rose Company, at Roseacres, Miss.

Mr. Good was a man with the courage of his beliefs, and members of the American Rose Society will remember his vigorous article printed on page 53 of the 1917 Annual, describing the important Springfield product.



"Winter Work with Roses" Ended.—Few articles in the several hundred included in the issues of the American Rose Annual since its first year, 1916, have attracted so much attention as those which were written by Mr. A. W. Greeley. The "Night-Growth of Roses," in the 1920 Annual, was a scientific contribution which was noticed and copied extensively. It is with grief that the Editor here announces the death of Mr. Greeley on December 29, 1920. As a friend who wrote in condolence to Mrs. Greeley said, "He worked so much with roses and thought so much about roses that I think the sweetness and beauty of the flower he loved must have entered into his every fiber in consequence."

Mr. Greeley was a busy newspaper editor, living in Williamsport, Pa. Two years ago ill-health compelled him to retire from active work, but he kept his rose-fires burning, and Mrs. Greeley writes of his plan to "go to California and do great things with his favorite flower" which plan could not be consummated. Mr. Greeley's work will endure, and the Editor's memory of his gentle nature and his keen insight will long be cherished.



More About the "Critical Date" for Rose Planting.—I was out of the Army in time to get a good start with my roses last year, and planted quite a lot. However, I had no particular success. A number of plants, particularly those on the Multiflora stock from an eastern firm, did not reach me until mid-May, and practically all of them died, although they were very good-looking plants, dormant, and received the best of care. I put in another lot earlier, about the middle of April, which did fairly well, but the best were those from an Ohio firm which came and were planted early in March. The plants in all three lots were apparently of equal quality; therefore I am inclined to agree with you in your ideas on "A Critical Date for Rose Planting," and I would say that in this region, at least, that date is around April 15.—G. A. STEVENS, *Mineral City, Ohio.*

New Rose-Test Garden to be Opened.—A rose-test garden is to be opened this spring at New Rochelle, N. Y., the local Garden Club subscribing a sum of money each year for the purchase of plants and the city furnishing the labor and maintenance. Mr. Thomas Wade, City Forester, has laid out a semicircular plot with twelve beds, with plantings of cedars and a pergola and seats in the background. The pergola will support the climbing roses. Ground was prepared last fall, and 450 roses have been selected, evenly divided between established favorites and novelties. The plot is forty by seventy feet and is capable of enlargement. It overlooks the Sound at Hudson Park, at Echo Bay near where the Huguenot refugees landed late in the seventeenth century.—REGINA ARMSTRONG NIEHAUS, New Rochelle, N. Y.



A Hybrid with *Rosa nutkana*.—From Mr. George Fraser, of Ucluelet, B. C., comes a most interesting picture (unfortunately not here reproducible) of a rose hybrid between the well-known American variety, Richmond, and the native *R. nutkana*, the latter being the pollen parent. It was, as Mr. Fraser writes, "A beautiful almost crimson variety of our native wild *Rosa nutkana*, and flowered in the spring of 1919 while still in the seed-box. Its color is almost the same shade as Reine Marie Henriette." This cross did not happen by accident, for, as Mr. Fraser in another letter observes, he had "tried for three summers running to cross *R. nutkana*, using it as the seed parent, but without success. I made perhaps 400 crosses with mixed pollen from some 50 varieties, also of species of every kind that I could lay my hands upon, including several American natives. Then I tried it as the pollen parent, using the almost crimson variety growing a few miles from here on the sand hills." The result was the seedling of which Mr. Fraser sent to the Editor a photograph, it being the only one so far of five hybrids to flower. A second photograph shows the bud to have a very pleasing shape.



The Loveliness and Value of Wild Roses.—Mr. Gersdorff's clear showing (page 34) of the American native roses ought to induce many to plant them—if ever nurserymen can be induced to provide them? A lover of the beauty of the wild roses is Mr. Thomas N. Cook, of Massachusetts, who writes thus:

"The Federal rules are giving us something to study about American wild roses. The Empress Josephine had them at Malmaison all of a hundred years ago, and if we will only go afield and look for them we will have plenty of delightful flowers, and will find some variations from the type that are worth while. There is a place where *Rosa virginiana* has been found with double flowers. This rose was known in France a long, long time ago, and is still grown there and in England. This plant is named by some "Rose d'Amour," which is a mistake. The Rose d'Amour described by Thory and painted by Redouté is Gallica, and the double form of our American rose was also described and painted by the same rose-lovers. The lovely Chinese wild roses, *R. Hugonis*, *R. Moyesii* and *R. Ecæ* do well, and selected plants of our American species are very good. *R. nitida* is a beauty, both in stems and foliage, all the year round."

Mr. Cook might have added that the Altaica form of *Rosa spinosissima* is a most lovely and desirable "wild" rose that works well as a rounded shrub with bright and attractive foliage in addition to its beautiful bloom. *Rosa setipoda*, *R. multibracteata* and *R. omeiensis pteracantha* are other beautiful Chinese wild roses that do well in the United States.

These wild roses are especially desirable for planting in spacious shrub borders, or in parks, or along broad driveways.

W. C. Egan's Eightieth Birthday.—Information reaches the Editor that through Mr. Charles L. Hutchinson, a member of the American Rose Society, the Garden Club of Illinois is arranging for a testimonial dinner to Mr. W. C. Egan, of Egandale, Highland Park, Ills., on his eightieth birthday, which is to occur April 1, 1921. The Editor, who has experienced the pleasure of visiting Mr. Egan many times, and of hearing from him many more times, refers members of the American Rose Society to his piquant and delightful articles and notes which we have from time to time printed in the Annual, as evidence of the youngness of this great lover of plants and trees. Egandale is a wonder-place, made up of not many acres, but the acres very large, because they have been stretched by Mr. Egan's plant-placing genius so as to be altogether beautiful and effective and proper. The rose at Egandale is in a climate anything but genial to it, and yet it smiles on Mr. Egan because he loves it and takes care of it.



"The Flower Grower, published by Madison Cooper, Calcium, N. Y., among other departments devoted to summer-flowering plants has one devoted to roses, and from time to time original articles containing useful facts and information are published, together with selections of the best material obtainable from other sources. *The Flower Grower* also contains much material of interest to flower growers in general, and information which applies to flower-growing in all its branches."—So writes Mr. Cooper, and it is all true. *The Flower Grower* is live and good, and worth while.—THE EDITOR.



Maman Cochet Best Rose for Southern Kansas.—In my opinion, Maman Cochet and White Maman Cochet are, without question, the best garden roses for southern Kansas. Here they are the real queens of the garden. When their good qualities become better known, they will become the most popular roses in Kansas.

At the World's Fair, in California, the Cochets won second place, and when a vote on the most popular rose was taken in Australia the same year, the Cochets won third place. I venture to predict that the Cochets will yet win first place in the rose-gardens of Kansas.

This grand garden rose is a vigorous, lusty, rugged, rampant grower of spreading habit, with fine leathery, glossy foliage. It is of the easiest culture, does well on its own roots or budded, and is quite hardy, disease-resisting, and looks more like a thrifty Hybrid Tea than a Tea—indeed, my bushes are larger than many of the Hybrid Teas. It is in bloom all the time from early spring till winter.

The buds are long, pointed, with broad, recurving petals of splendid texture and substance, unfolding into perfect blooms which are never malformed or blighted. The flowers are large, very full and double, and if cut in the morning will last a week if placed in water. In color they are rose-pink, with bright rose shadings. It is equally good in bud and flower and has more good points than any other garden rose for Kansas that I know anything about.

I have many kinds of roses in my garden, but if I could have only two kinds, they would be Maman Cochet and White Maman Cochet. When I go into my rose-garden for a bouquet for a sick friend or for my pulpit, I invariably find myself among the Cochets, because there I get the best blooms, with substantial stems from eighteen inches to two feet long. Then, too, the Cochet roses make a good showing in the garden for they are so well provided with foliage that their growing-place never has that bare look.—REV. J. A. B. OGLEVEE, Caldwell, Kan.

New Roses Registered in 1920-21

From H. L. Collier, Seattle, Wash., August 16, 1920:

Eugenia, Per. Sport of Mme. Edouard Herriot. Like Mme. Edouard Herriot except that blooms are flecked or striped with yellow.

From E. G. Hill Co., Richmond, Ind., February 5, 1921:

Hill's America, H.T. Rose Premier $\times$ Hoosier Beauty. Bud long-pointed; flower immense, very lasting, rose-pink; fragrant. Foliage large, dark green. Vigorous; very free bloomer. Thornless. Resembles Columbia but superior in color and form of bud.

From Fred H. Lemon & Co., Richmond, Ind., January 17, 1921:

Miss Amelia Gude, H.T. (forcing). Columbia $\times$ Sunburst. Bud long-pointed; flower medium size (35 to 40 petals), lasting, outer petals reflexing; deep yellow center shading to cream; fragrant. Foliage very handsome dark green. Very vigorous; upright; very free bloomer; hardiness not tested. Similar to Sunburst but preferred because of its smaller bud.

Angelus, H.T. (forcing). Columbia $\times$ Ophelia. Flower large, full (40 to 45 petals), form similar to Premier but higher center, lasting; white, cream tint at center; fragrant. Foliage dark green, disease-resistant. Vigorous; upright; free bloomer. Hardiness not tested. Similar to Kaiserin Auguste Victoria, but more double; blooms in winter, and keeps longer.

Rotarian, H.T. (forcing). Ophelia $\times$ unknown pollen parent. Bud long-pointed; flower large, full (35 to 40 petals), lasting, high center, reflexed outer petals; bright cherry-crimson; fragrant. Foliage dark green with red tips, free from mildew. Vigorous; upright; free bloomer. Similar to Frank W. Dunlop, but superior because free from mildew, has stronger stems, with color brighter, and does not blue.

From Jos. H. Hill Co., Richmond, Ind., March 5, 1920:

Red Columbia, H.T. Sport of Columbia. Similar to Columbia, but not so full and of a brilliant scarlet color, like Hoosier Beauty; very lasting. Free bloomer.

From R. & J. Farquhar, Boston, Mass., April 21, 1920:

Betty Alden, H.Poly. (?). (Origin confused; introducer pays no attention to inquiries.) Flower single, apple-blossom-pink, changing to white; borne in clusters. Foliage glossy, dark green. Vigorous. Hardy.

Beacon Belle, H.Poly. (?). (Origin confused; introducer pays no attention to inquiries.) Similar to Betty Alden, but flowers very double and close; flesh-color, becoming pure white when mature; slight fragrance.

Boston Beauty, H.Poly. (?). (Origin confused; introducer pays no attention to inquiries.) Flower full, double, clear pink, borne in clusters; very fragrant. Foliage leathery, dark green. Vigorous. Hardy.

From Clarke Bros., Portland, Ore., May 15, 1920:

Oregon Ophelia, H.T. Sport of Ophelia. Flower and bud similar in shape to Ophelia, semi-globular, full (56 petals), light pink shading to yellow at base; fragrance same as Ophelia. Foliage dark green, practically disease-proof. Vigorous; upright; very profuse and continuous bloomer. Hardy.

From Edward Towill, Roslyn, Pa., December 3, 1920:

Legion, H.T. Milady seedling $\times$ Hadley seedling. Bud well-shaped, globular; flower large, full (42 to 48 petals), lasting, cerise-red throughout; fragrant. Foliage large, glossy, reddish green, not subject to mildew. Vigorous; very profuse bloomer. Hardy. (Originally named "American Legion" but name changed because objected to by association of that name.)

Official List of American Roses

Compiled by CHARLES E. F. GERSDORFF

(Corrected in this Sixth Edition to March 10, 1921)

EDITOR'S NOTE.—No feature of the successive issues of the American Rose Annual has been of more substantial importance or benefit than the list which follows, now properly called "official." When first put together in 1916 it was more nearly a bare hint of the roses introduced in America. The unremitting and continuous efforts of Mr. Gersdorff have resulted in giving it a completeness and an authority of accuracy quite unusual.

The publication of this list serves as notice in respect of names attached to roses of American origin. Duplications in later introduced varieties are inadmissible, and the American Rose Society will not register such duplications.

The Editor will be glad to transmit to Mr. Gersdorff any corrections or additions which will tend to make this list more complete. The makers of catalogues are urged to accept the nomenclature here presented as authoritative and accurate.

ABBREVIATIONS

The abbreviations used are: Arv. (Arvensis), B. (Bourbon), B.-C. (Bourbon-China), Ben. (Bengal), Ben.-C. (Bengal-China), C. (China), Cl.B. (Climbing Bourbon), Cl. H.T. (Climbing Hybrid Tea), Cl. T. (Climbing Tea), D. (Damask), H. Ben. (Hybrid Bengal), H. Ben.-T. (Hybrid Bengal-Tea), H.Cl. (Hardy Climber), H.D. (Hybrid Damask), H.Mult. (Hybrid Multiflora), H.N. (Hybrid Noisette), H.P. (Hybrid Perpetual), H. Ramb. (Hybrid Rambler), H. Ru. (Hybrid Rugosa), H. Set. (Hybrid Setigera), H.T. (Hybrid Tea), H. T.-Poly. (Hybrid Tea-Polyantha), H.W. (Hybrid Wichuraiana), H.W.-Ru. (Hybrid Wichuraiana-Rugosa), Læv. (Lævigata), Mult. (Multiflora), N. (Noisette), Per. (Pernetiana), Poly. (Polyantha), H. Poly.-Ayr. (Hybrid Polyantha-Ayrshire), Prov. (Provence), Ramb. (Rambler), Semp. (Semperflorens), Set. (Setigera), T. (Tea), W. (Wichuraiana), A. R. S. (American Rose Society).

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 42. Bulletin American Rose Society, 1913.
 43. *Horticulture*, June 28, 1919.
 44. *Horticulture*, July 12, 1919.
 45. Nomenclature de tous les noms des roses, by Leon Simon and P. Cochet, Second Edition, 1906.
 46. F. L. Mulford, U. S. Department of Agriculture, Washington, D. C.
- ABUNDANCE, Poly. (Henderson, 1910.) Clotilde Soupert × Souv. du President Carnot. 25.
- ADAM RACKLES, H.T. (Rommel, 1905.) 45.
- ADMIRAL DEWEY, H.T. (Taylor, 1899.) Sport from Mme. Car. Testout. 15, 19.
- ADMIRAL EVANS, H.T. (E. G. Hill Co., 1907; not formally introduced.) 5, 13. Liberty × unnamed seedling. 12.
- ADMIRAL SCHLEY, H.T. (J. Cook, 1901.) Colonel Joffe × General Jacqueminot. Received Bronze Medal at Pan-American Exposition. 19.
- AGNES EMILY CARMAN, H.Ru. (Carman, 189-.) *R. rugosa* × Harison's Yellow. 29.
- ALBA RUBRIFOLIA, H.W. (Van Fleet, 1898; intro. by Conard & Jones Co.) *Wichuraiana* hybrid.
- ALICE ALDRICH, H.Ru. (J. T. Lovett, 1899.) 15. *R. rugosa* × unknown Tea or Hybrid Tea.
- ALICE LEMON, H.T. (E. G. Hill Co., 1911.) Mme. Philippe Rivoire × Paul Neyron. 25.
- ALIDA LOVETT, H.W. (Van Fleet, 1905; intro. by J. T. Lovett, 1917.) *R. Wichuraiana* × Souv. du President Carnot. 15.
- ALICE OF INGLESIDE, H.T. (Briggs, 1910.) 42.
- AMARANTE, B. (Page, 1859.) 45.
- AMERICA, H.Cl. (Walsh, 1915.) 29.
- AMERICA, N. (Page, 1859.) 8, 16.
- AMERICA, H.Ru. (Garden, Harvard University, 1894.) 5.
- AMERICA, H.T. (E. G. Hill Co., 1902.) 45.
- AMERICAN BANNER, T. (Cartwright, 1877.) 1, 17. Sport of Bon Silene. 16.

- AMERICAN BEAUTY, H.P. (Bancroft, 1886.) Syn., Mme. Ferd. Jamain, as which it seems to have been introduced in France by Ledéchaux, 1873. 3, 17, 19. (Field Brothers.) 16.
- AMERICAN BELLE, H.P. (J. Burton, 1893.) Sport from American Beauty. 19.
- AMERICAN PILLAR, H.W. (Van Fleet, 1902; intro. by Conard & Jones Co.) *R. Wichuraiana* × *R. setigera*. 19.
- AMERICAN SEEDLING, H.T. (Bisset, 1904.) 45.
- AMENA, Læv. (Hockbridge, 1909.) 15.
- ANGELUS, H.T. (F. H. Lemon & Co., reg. A. R. S., 1920.) Columbia × Ophelia. 15.
- ANNA MARIA, Set. (Feast, 1843.) 1, 13, 19. Syn., Anna Marie. 15.
- ANNIE COOK, T. (J. Cook, 1888.) 1. Seedling from Bon Silene. 17.
- APPLE BLOSSOM, H.Cl. (Dawson, 189—; not formally introduced.) 29. Dawson × *R. multiflora*. 31.
- APPLE BLOSSOM, Poly. (Schultheis, 1908.) 26.
- ARCADIA, H.W. (Walsh, 1913.) 15.
- ARNOLDIANA, H.Ru. (Dawson, 1914.) *R. rugosa* × General Jacqueminot. Syns., Arnold; Dawson's Hybrid Rugosa.
- ATLAS, H.T. (E. G. Hill Co., 1903.) 19. (1902.) 45.
- AUGUSTA, N. (1853.) 1. Seedling from Solfatare. 8.
- AUGUSTINE GUINOISSEAU, JR., H.T. (California Rose Co., 1911.) Sport of Augustine Guinoisseau. 15, 30.
- AUNT HARRIET, H.W. (Van Fleet, —; intro. by *Farm Journal* of Philadelphia, 1918.) Appoline × *R. Wichuraiana*. 15.
- AURORA D'ENGHIEN, Prov. (Feast, —.) 45.
- BABETTE, H.Cl. (Walsh, 1908.) 15, 19.
- BALTIMORE, H.T. (J. Cook, 1898.) Mme. Antoine Rivoire × Mary Fitzwilliam. 42.
- BALTIMORE BELLE, Set. (Feast, 1843.) 10, 19.
- BEACON BELLE, H.Poly.-Ayr. (R. & J. Farquhar & Co., reg. A. R. S., 1919.) Orleans × (Katharina Zeimet × an old Ayrshire rose). 33.
- BEAUTY OF GREENMONT, H.Set. (Pentland of Baltimore, 1854.) 16.
- BEAUTY OF GREENWOOD, N. 17.
- BEAUTY OF ROSEMAWR, B. (Conard & Jones Co., 1903.) 15, 19.
- BEAUTY OF THE PRAIRIES, Set. (Feast, 1843.) 13, 19. Syns., Queen of the Prairies, Prairie Queen. 10; Feast's No. 1, Mme. Caradori Allan, 22.
- BEDFORD BELLE, H.T. (Bedford Flower Co., reg. 1916.) 15. Sport from Double White Killarney.
- BELLE AMERICAINE, H.P. (D. Boll, 1837.) 1, 16, 17.
- BELLE OF WASHINGTON, H.T. (Field, 1904.) 45.
- BELLE PORTUGAISE, Hybrid (?). (Franceschi, —.) *R. moschata* × *R. odorata gigantea*. 34.
- BESS LOVETT, H.W. (Van Fleet, 1905; intro. by J. T. Lovett, 1917.) 15.
- BETTY ALDEN, H.Poly.-Ayr. (R. & J. Farquhar & Co., reg. A. R. S., 1919.) Orleans × (Katharina Zeimet × an old Ayrshire rose.) 33.
- BIRDIE BLYE, H.Cl. (Van Fleet, 1904; intro. by Conard & Jones Co.) Helene × Bon Silene. 19.
- BLOOMFIELD ABUNDANCE, H.T. (Capt. George C. Thomas, Jr., reg. A. R. S., 1920; intro. by Bobbink & Atkins and A. N. Pierson, Inc., 1920.) Sylvia × Dorothy Page-Roberts. 15.
- BLOOMFIELD PERPETUAL, H.P. (Capt. George C. Thomas, Jr., reg. A. R. S., 1920; intro. by Bobbink & Atkins, 1920.) Iceberg × Frau Karl Druschki. 15.

- BLOOMFIELD PROGRESS, H.T. (Capt. George C. Thomas, Jr., reg. A. R. S., 1920; intro. by Bobbink & Atkins, 1920.) Mary, Countess of Ilchester $\times$ General MacArthur.
- BLUSH MARYLAND, H.T. (Totty, 1912.) Sport. 15.
- BONNIE BELLE, H.Cl. (Walsh, 1911.) 25.
- BONNIE PRINCE, H.W. (Thomas N. Cook, reg. A. R. S., 1918.) Tausendschön $\times$ unnamed seedling.
- BOSTON, H.T. (Montgomery Co., reg. A. R. S., 1917.) Mrs. Geo. Shawyer $\times$ Montgomery seedling. 15.
- BOSTON BEAUTY, H.Poly.-Ayr. (R. & J. Farquhar & Co., reg. A. R. S., 1919.) Orleans $\times$ (Katharina Zeimet $\times$ an old Ayrshire rose.) 33.
- BRIDAL WREATH, H.W. (Manda, 1909.) 37.
- BRIDE, T. (May, 1885.) 15, 19. Sport from Catherine Mermet. 16. Syn., The Bride. 15. Syn., La Fiancee, 1.
- BRIDESMAID, T. (Moore, 1892.) 15, 19. Sport from Catherine Mermet. Probably identical with The Hughes. 16.
- BRIGHTON BEAUTY, T. (Originated by Bragg; intro. by May, 1891.) 16, 17.
- BUENA VISTA, B. (Page, 1859.) 45.
- BUNKER HILL, B. (Page, 1859.) 45.
- BURBANK, Ben. (Burbank; intro. by Burpee, 1898.) 5, 42. Armosa (Hermosa) $\times$ seedling of Bon Silene. 15, 19.
- BUTTERCUP, Cl.T. (California Rose Co., 1908.) 15. Seedling of unknown parentage. 30.
- CALIFORNIA, H.T. (Howard & Smith, reg. A. R. S., 1916.)
- CANADIAN QUEEN, H.T. (Reg. by H. Dale Estate, 1902; intro. by Breitmeyer Floral Co., 1911.) 41, 42.
- CAPTAIN HUDSON, Per. (Kersbargen Brothers, 1911.) 15.
- CARDINAL, H.T. (J. Cook, 1904.) Liberty $\times$ unnamed red seedling. 19.
- CARISSIMA, H.W. (Walsh, 1904.) 15. Seedling of Wichuraiana. 19, 45.
- CARMEN SILVA, T. (Heidecker, 1891.) 1.
- CAROLINE COOK, T. (Anthony Cook, 1871.) Seedling of Safrano. 17.
- CAROLINE GOODRICH, H.P. (America, —.) Syn., Climbing Gen. Jacqueminot. 45.
- CATHERINE BELL, H.P. 20. (Bell & Son, 1877.) 17.
- CELESTE, H.W. (Walsh, 1911.) 40.
- CHAMPION OF THE WORLD, Ben. (Woodhouse, 1894.) 1.
- CHAMPNEY'S PINK CLUSTER, N. Supposed hybrid of *R. chinensis* $\times$ *R. moschata* raised about 1810 by John Champney, of Charleston, S. C. About 1817 Philip Noisette, of the same city, grew from it a rose which his brother, Louis Noisette, of Paris, distributed as Blush Noisette. 2, 16, 45.
- CHAMP WEILAND, H.T. (Weiland and Risch, reg. A. R. S., 1915.) Sport from Killarney. 15.
- CHARLES GETZ, B. (Anthony Cook, 1871.) 17.
- CHARLES WAGNER, H.P. (Van Fleet, 1904; intro. by Conard & Jones Co.) Jean Liabaud $\times$ Victor Hugo.
- CHILDS' JEWEL, H.T. (Childs, 1902.) Sport from Killarney. 15.
- CHRISTINE WRIGHT, H.W. (Hoopes, Bro. & Thomas Co., 1909.) Unnamed seedling $\times$ Mme. Caroline Testout.
- CINDERELLA, H.W. (Walsh, 1909.) 15, 19.
- CINDERELLA, N. (Page, 1859.) 45.
- CLARA BARTON, H.T. Poly. (Van Fleet; intro. by Conard & Jones Co., 1898.) Clotilde Soupert $\times$ American Beauty. 16, 32.

- CLIMBING AMERICAN BEAUTY, H.W. (Hoopes, Bro. & Thomas Co., 1909.)
American Beauty $\times$ Marion Dingee $\times$ *R. Wichuraiana*. 15. Silver Medal,
A. R. S., 1915.
- CLIMBING BRIDESMAID, T. (Dingee & Conard, 1897.) Sport. 15, 42.
- CLIMBING CECILE BRUNNER, Poly. (Sport at Riverside, Calif., 1901.) 15.
- CLIMBING CLOTILDE SOUPERT, Poly. (Dingee & Conard, 1902.) Sport. 19.
- CLIMBING COL. R. S. WILLIAMSON, H.T. (Dingee & Conard, —.) Sport. 15.
- CLIMBING COMTESSE EVA STARHEMBERG, T. (Glen Saint Mary Nurseries, 1917.)
Sport. 15.
- CLIMBING COUNTESS OF OXFORD, H.P. (Smith, 1875.) Sport. 1.
- CLIMBING ETOILE DE FRANCE, H.T. (Howard Rose Co., 1915.) Sport. 15.
- CLIMBING FRAU KARL DRUSCHKI, H.P. (Lawrenson, 1906.) Sport. 15, 19.
- CLIMBING GRUSS AN TEPLITZ, H.T. (Storrs & Harrison, 1911.) Sport. 15.
- CLIMBING HELENE CAMBIER, H.T. (California Rose Co., 1911.) Sport. Syn.,
Climbing Helene Gambier. 15.
- CLIMBING HELEN GOULD, H.T. (Good & Reese, 1912.) Sport from Balduin
(Helen Gould). 15.
- CLIMBING HUGH DICKSON, H.P. (California Rose Co., 1914.) Sport. 15.
- CLIMBING KILLARNEY, H.T. (Reinberg, 1908.) Sport. 15.
- CLIMBING LA FRANCE, H.T. (Henderson, 1893.) Sport. 1, 3, 19.
- CLIMBING LIBERTY, H.T. (May, 1908.) Sport. 23, 26.
- CLIMBING MARIE GUILLOT, T. (Dingee & Conard, 1898.) Sport. 42.
- CLIMBING METEOR, H.T. Sport. 3.
- CLIMBING MME. JULES GROLEZ, H.T. (Dingee & Conard, —.) Sport. 15.
- CLIMBING MME. WELCHE, T. (Mellen, 1911.) Sport. 15.
- CLIMBING MOSELLA, Poly. (Conard & Jones Co., 1909.) Sport. 15, 19, 25.
- CLIMBING MRS. W. J. GRANT, H.T. (E. G. Hill Co., 1899.) Sport from Mrs.
W. J. Grant (Belle Siebrecht). Syn., Climbing Belle Siebrecht (W. Paul &
Son, 1899). 15, 23.
- CLIMBING MY MARYLAND, H.T. (Dingee & Conard, 1915.) Sport. 15.
- CLIMBING ORIENTAL, C. (U. S. Department of Agriculture, 1914.) Seedling. 15.
- CLIMBING PAPA GONTIER, Cl.T. (Chase & Co., 1905.) Sport. 15, 30.
- CLIMBING PERLE DES JARDINS, T. (J. Henderson, 1889.) Sport. 1, 2, 3, 13,
17, 19.
- CLIMBING PINK AMERICAN BEAUTY, H.T. (U. S. Nurs. Co., reg. 1914.) 15.
- CLIMBING PINK MAMAN COCHET, T. (Conard & Jones Co., 1915.) Sport. Syns.,
Climbing Maman Cochet; Climbing Pink Cochet. 15.
- CLIMBING RAINBOW, T. (California Rose Co., 1914.) Sport. 15.
- CLIMBING RHEA REID, H.T. (California Rose Co., 1914.) Sport. 15.
- CLIMBING ROSEMARY, H.T. (Dingee & Conard, —.) Sport. 15.
- CLIMBING SENBURST, H.T. (Howard Rose Co., 1915.) Sport. 15.
- CLIMBING WHITE KILLARNEY, H.T. (Conard & Jones Co., —.) Sport. 15.
- CLIMBING WINNIE DAVIS, T. (California Rose Co., 1913.) Sport. 15.
- CLIMBING WOOTTON, H.T. (Thos. Butler, 1899.) Sport of Souv. of Wootton. 15.
- COLUMBIA, H.T. (America, 1901.) 45.
- COLUMBIA, H.W. (Hoopes, Bro. & Thomas Co., 1903.) Unnamed seedling $\times$
Mme. Caroline Testout.
- COLUMBIA, H.T. (E. G. Hill Co., reg. A. R. S., 1917.) Ophelia $\times$ Mrs. George
Shawyer.
- COQUINA, H.W. (Walsh, 1911.) 40.
- CORA L. BARTON, N. (Buist, 1850.) Seedling from Lamarque. 21.
- CORNELIA, H.T. (Robert Scott & Son, Inc., reg. A. R. S., 1919.) Ophelia $\times$
Mrs. Aaron Ward. 15.

- CORNELIA COOK, T. (Cook, 1855.) 15, 19. Sometimes given as Cornélie Koch. (A. Koch, 1855.) Seedling from Devoniensis. 17. Syn., Mlle. Denise de Reverseaux. 1.
- CORONA, H. Ramb. (Burbank, 1913.) 15.
- CORONET, H.T. (Dingee & Conard, 1897.) Carmine, 1; white, yellow, 13.
- CREAM BEAUTY, H.T. (Greening, 1902.) 45.
- CRIMSON CHAMPION, H.T. (Cook, 1916.) 15.
- CRIMSON QUEEN, H.T. (Montgomery, 1912.) Liberty × Richmond × General MacArthur.
- CRIMSON ROAMER, H.W. (Manda, 1901.) Bardou Job × Jersey Beauty.
- CRUSADER, H.T. (Montgomery & Co., Inc., reg. A. R. S., 1919; intro. by A. N. Pierson, Inc., 1920.) Seedling. 15.
- CUMBERLAND BELLE, Moss. (Dreer, 1900.) Sport from Princess Adelaide. 19.
- DARK PINK KILLARNEY, H.T. (A. N. Pierson, Inc., 1910.) Sport. 27.
- DARK PINK RUSSELL, H.T. (Montgomery, 1916.) Sport. 15.
- DAVID HARUM, H.T. (E. G. Hill Co., 1904.) 3, 19.
- DAWSON, H. Mult. (Dawson, 1888; intro. by Wm. C. Strong, 1890.) *R. multiflora* × General Jacqueminot twice. 19.
- DAWSONIANA, Mult. (Ellwanger, 1901.) 13.
- DAYBREAK, H.W. (Dawson, 1909.) *R. Wichuraiana* × *R. indica carnea*.
- DAYDAWN, H.T. (Heller Brothers, 1909.) 15.
- DEBUTANTE, W. (Walsh, 1901.) *R. Wichuraiana* × Baroness Rothschild. 15, 16, 19, 25, 45.
- DEFIANCE, H.T. (E. G. Hill Co., 1907.) Lady Battersea × Gruss an Teplitz. 19.
- DEFIANCE, H.T. (Kress, reg. 1914.) Gruss an Teplitz × Etoile de France.
- DELIGHT, H.Cl. (Walsh, 1904.) A. R. S. Cert. of Merit. 15, 19.
- DINSMORE, H.P. (Henderson, 1888.) 1.
- DOROTHY PERKINS, H.W. (Jackson & Perkins, 1902.) *R. Wichuraiana* × Mme. Gabriel Luizet. 9. (1901.) 15.
- DOUBLE IMPROVED WHITE KILLARNEY, H.T. (S. J. Reuter & Sons, 1911.) Sport. 42.
- DOUBLE LÆVIGATA, Læv. (California, 1900.) Syns., Double Cherokee; *R. lævigata flore-pleno*. 15.
- DOUBLE OPHELIA, H.T. (E. H. Hill Co., reg. A. R. S., 1917.) Ophelia × unnamed seedling.
- DOUBLE PINK KILLARNEY, H.T. (Robert Scott & Son, 1910 and F. R. Pierson, 1911.) Sport. 15, 40.
- DOUBLE WHITE KILLARNEY, H.T. (Budlong, 1913.) Sport. 15.
- DOUBLE WHITE KILLARNEY, H.T. (Totty, 1914.) Sport. 15.
- DR. FRANKLIN, H.P. (Page, 1859.) 45.
- DR. HUEY, H.W. (Capt. George C. Thomas, Jr., 1914; reg. A. R. S., 1920; intro. by Bobbink & Atkins and A. N. Pierson, Inc., 1920.) Ethel × Gruss an Teplitz. 43.
- DR. KANE, H.P. (Page, 1859.) 45.
- DR. KANE, N. (Pentland, 1856.) 16, 17.
- DR. W. VAN FLEET, H.W. (Van Fleet; intro. by P. Henderson & Co., 1910.) *R. Wichuraiana* × Souv. du President Carnot. Syns., Dr. Van Fleet; Van Fleet Rose. 15, 32.
- EASTER GEM, T. (Conard & Jones Co., 1904.) 45.
- EASTERN GEM, T. (Conard & Jones Co., 1905.) 19.
- EDWARD VII, Poly. (Schultheis, 1910.) 26.
- EDWARD EVERETH, B. (Page, 1859.) 45.

- EDWIN F. SMITH, H.T. (Byrnes, U. S. Dept. of Agric., 1918.) 46.
- EDWIN LONSDALE, H.W. (Hoopes, Bro. & Thomas Co., 1903.) *R. Wichuraiana* × *Safrano*. 19. (1900.) 45.
- ELEGANS, Set. (Feast, about 1843.) Syn., Chillicothe Multiflora. 10.
- ELIZABETH ZEIGLER, H.W. (A. N. Pierson, reg. 1917.) Sport of Dorothy Perkins.
- ELLA CHATIN, H.T. (E. G. Hill Co., 1909.) 13.
- ELLA MAY, T. (May, 1890.) 5.
- EMPRESS OF CHINA, Ben. (Jackson & Perkins, 1896.) 5, 15, 19. Syn., Apple Blossom. 15.
- ENCHANTER, H.T. (J. Cook, 1903.) Mme. Caroline Testout × Furon. 19.
- ENCHANTRESS, T. (Cook, 1904.) 45.
- ERSKINE PARK BELLE, W. (Edw. J. Norman.) Sport from *R. Wichuraiana*. 15.
- ETOILE DE FRANCE, JR., H.T. (California Rose Co., 1911.) Sport. 15.
- EUGENIA, Per. (H. L. Collier, reg. A. R. S., 1920.) Sport of Mme. Edouard Herriot.
- EVA CORINNE, Set. (Pierce, of Washington, D. C., 185-.) 10.
- EVANGELINE, H.W. (Walsh, 1906.) 15, 19. *R. Wichuraiana* × *Crimson Rambler*. 12.
- EVELYN, H.T. (A. N. Pierson, Inc., reg. A. R. S., 1918.) Sport of Ophelia. 15.
- EVERBLOOMING PRAIRIE QUEEN, H.Set. (P. H. Meehan; intro. by Dingee & Conard Co., 1898.) 42.
- EVERGREEN GEM, H.W. (Manda, 1889.) *R. Wichuraiana* × *Mme. Hoste*. 19. (1899.) 45.
- EXCELSA, H.Cl. (Walsh, 1908.) Syn., Red Dorothy Perkins. 15. Hubbard Gold Medal, A. R. S., 1914.
- FAIR HELEN, H.P. (Smith, 1899.) 45.
- FARQUHAR, H.W. (Dawson, 1903; intro. by R. & J. Farquhar & Co.) 31. *R. Wichuraiana* × *Crimson Rambler*. 15, 16, 19. Syn., The Farquhar. 15.
- FEAST'S PINK, Arv. (Feast, —.) 45.
- FELICITY, H.T. (Clarke Bros., reg. A. R. S., 1919.) Ophelia × Hoosier Beauty. 15.
- FLAG OF THE UNION, T. (Hallock & Thorpe.) Sport from Bon Silene. 17.
- FLORENCE CHENOWETH, A. B. (Chenoweth, reg. A. R. S., 1918.) Sport of Mme. Edouard Herriot. 15.
- FLOWER OF FAIRFIELD, Mult. (Schultheis, 1909.) 13. (1908.) 15. (Ludorf, 1908.) 19. Syn., Everblooming Crimson Rambler. 15.
- FLUSH O'DAWN, H.T. (Walsh, 1902.) Margaret Dickson × Sombreuil. 19. Syn., Blush o'Dawn. 42.
- FOUR HUNDRED, H.P. (Connor, 1901.) Sport from American Beauty. 42.
- FRANCES WILLARD, T. (Good & Reese, 1899.) Marie Guillot × Coquette de Lyon. Syn., President Cleveland. 15, 42.
- FRANCIS SCOTT KEY, H.T. (J. Cook, 1913.) Radiance × No. 411 (an unnamed crimson seedling).
- FRANK W. DUNLOP, H.T. (John H. Dunlop, reg. A. R. S., 1919; intro. by C. H. Totty Co., 1920.) Mrs. Charles Russell × Mrs. George Shawyer. 15.
- FREEDOM, H.T. (Griffin, 1900.) 42.
- FREEDOM, H.T. (F. H. Lemon & Co., 1920.) Seedling. 15.
- FREEDOM, H.W. (F. R. M. Undritz, reg. A. R. S., 1918; intro. by Reinhold Undritz, 1918.) Silver Moon × Kaiserin Auguste Victoria. Syn., Climbing White American Beauty.
- GAINSBOROUGH, Cl.H.T. (Good & Reese, 1903.) Sport from Viscountess Folkestone. Syn., Climbing Viscountess Folkestone; Gainesboro. 15.

- GALAXY, H. W. (Walsh, 1906.) 26.
- GARDENIA, H.W. (Manda, 1899.) *R. Wichuraiana* × *Perle des Jardins*. 19.
Syn., Hardy Marechal Niel. 15.
- GARDEN'S GLORY, H.T. (Conard & Jones Co., 1905.) 42.
- GARNET CLIMBER, H.W. (Van Fleet, 1907; intro. by P. Henderson & Co., 1908.) *R. Wichuraiana* × *Lucullus*. 32, 39.
- GEM OF THE PRAIRIE, Set. (Burgesse, 1860.) *Beauty of the Prairies* × *Mme. Laffay*. 7.
- GEN. JOHN PERSHING, H.W. (F. R. M. Undritz, reg. A. R. S., 1917, as "F. R. M. Undritz;" intro. by Reinhold Undritz.) *Dr. W. Van Fleet* × *Mrs. W. J. Grant* (*Belle Siebrecht*). 15. Name changed by permission of Executive Committee, A. R. S., Jan. 12, 1920.
- GENERAL MACARTHUR, H.T. (E. G. Hill Co., 1904.) 19.
- GENERAL OLIVER, H.P. (Page, 1859.) 45.
- GENERAL ROBERT E. LEE, T. (Good & Reese, 1896.) 15.
- GENERAL TAYLOR, B. (America, —.) 45.
- GENERAL VON MOLTKE, H.P. (Bell & Son, 1873.) Seedling from Charles Lefebvre. 17.
- GENEVIEVE, H.Cl. (Jackson & Perkins, 1911.) 42.
- GEORGE PEABODY, H.Ben. (Pentland, 1857.) 1, 16. Seedling from Paul Joseph. 17.
- GLADY TALBOT, H.W. (Manda, 1904.) 37.
- GLORIFIED LA FRANCE, H.T. (J. Cook, reg. A. R. S., 1919.) *Frau Karl Druschki* × *Mrs. Charles Russell*. 15.
- GOLDEN GATE, T. (Dingee & Conard, 1892.) 9, 19. *Safrano* × *Cornelia Cook*. 5, 9. (Jones of New Orleans, about 1888.) 16.
- GOLDEN GEM, H.T. (Towill, reg. A. R. S., 1917.) *Lady Hillingdon* × *Harry Kirk*.
- GOLDEN RULE, H.T. (E. G. Hill Co., 1918.) *Ophelia* seedling × *Sunburst*.
- GOLDEN TROPHY, Cl.T. (California Rose Co., 1914.) 15. Sport from *Duchesse de Auerstadt*. 30.
- GREAT WESTERN, H. Ben. (America, —.) 45.
- HADLEY, H.T. (Montgomery Co.; intro. by A. N. Pierson, Inc., 1914.) (*Liberty* × *Richmond*) seedling × *General MacArthur*. Awarded Gold Medal, A. R. S., 1914.
- HANSEN, H.Ru. (Prof. Budd, 189—.) Syn., *Hansa*. 15.
- HARISON'S YELLOW, Brier. (Harison, of New York.) (1830.) 1, 10, 19. Syns., *R. Harisonii*; *Hogg's Yellow*; *Yellow Sweetbrier*. 21. Possibly a hybrid of *Austrian Briar* × *R. spinosissima*. 34.
- HELEN GOOD, T. (Good & Reese, 1906.) Sport from *Maman Cochet*. 15, 19. Syn., *Golden Cochet*. 15.
- HELEN MILLS, H.T. (Dingee & Conard Co., 1910.) 25.
- HELEN TAFT, H.T. (U. S. Department of Agriculture, 1913.) Syn., *Miss Helen Taft*. 15.
- HENRY CLAY, B. (America, —.) 45.
- HENRY IRVING, H.P. (Conard & Jones Co., 1907.) 19.
- HENRY M. STANLEY, T. (Dingee & Conard, 1891.) 1.
- HLAWATHA, H.W. (Walsh, 1904.) First Prize, A. R. S. 15, 16. *Crimson Rambler* × *Carmine Pillar*. 19.
- HIBBERTIA, C. (Buist, about 1830.) 21.
- HIGHLAND MARY, T. (Dingee & Conard, 1908.) 19.
- HILDA, H.T. (Myers & Samtman, 1911.) Sport from *My Maryland*, 40.

- HILL'S AMERICA, H.T. (E. G. Hill Co., reg. A. R. S., 1921.) Rose Premier × Hoosier Beauty.
- HOOSIER BEAUTY, H.T. (F. Dorner & Sons Co., 1915.) Syn., Liberty Beauty.
- IDA, H.Cl. (Dawson, 189—; not formally introduced.) Dawson × *R. multiflora*. 29.
- IDEAL, H.T. (Jacob Becker, 1900.) 15, 19.
- IMPROVED RAINBOW, T. (Burbank, —.) 15.
- IMPROVED UNIVERSAL FAVORITE, H.W. (Manda, 1901.) 37.
- INDIANA, H.T. (E. G. Hill Co., 1907.) 13. Rosalind Orr English × Frau Karl Druschki. 12.
- INTENSITY, H.T. (Dingee & Conard, 1908.) 19, 25.
- ISABELLA GRAY, N. (Gray, 1855.) Seedling from Cloth of Gold or Chromatella. 8, 17.
- ISABELLA SPRUNT, T. (Sprunt, 1866.) 15. Sport from Safrano. 17.
- IVORY, T. (American Rose Co., 1902.) Sport from Golden Gate. 3, 19. Syn., White Golden Gate. 15. (1901.) 45.
- JACKSONIA, C. (Buist, about 1830.) Syn., Hundred-leaved Daily. 21.
- JAMES SPRUNT, Cl.Ben. (Sprunt, 1856.) 6, 9. Sport from Agrippina. 17.
- JANE, Set. (Pierce, about 1850.) 1, 10.
- JANICE MEREDITH, Ben. (E. G. Hill Co., 1902.) 45.
- JERSEY BEAUTY, H.W. (Manda, 1899.) *R. Wichuraiana* × Perle des Jardins. 19.
- JESSICA, H.W. (Walsh, 1909.) 25.
- JOHN BURTON, W. (Hoopes, Bro. & Thomas Co., 1903.) *R. Wichuraiana* × Safrano. 19.
- J. S. FAY, H.P. (Walsh, 1899.) 15, 19. Prince Camille de Rohan × Pierre Notting. 42.
- JUANITA, H.W. (Walsh, 1907.) 38.
- JUBILEE, H.P. (Henderson, 1898.) 1, 19. (1897.) 15. (Walsh, 1897.) Victor Hugo × Prince Camille de Rohan. 16.
- KALMIA, H.W. (Walsh, 1911.) 25.
- KANSAS CITY, H.T. (Conard & Jones Co., 1903.) 45.
- KEYSTONE, Mult. (Dingee & Conard, 1904.) 15, 19.
- KILLARNEY QUEEN, H.T. (J. A. Budlong & Son Co.; intro. by A. N. Pierson, Inc., 1912.) Sport. 40.
- KING DAVID, H.T. (California Rose Co., 1910.) 15. Sport of Vick's Caprice. 30.
- KING OF THE PRAIRIES, Setigera type. (Feast, 1843.) 1, 10.
- LA DETROIT, H.T. (Hopp & Lemke, 1904; intro. by P. Breitmeyer's Sons, 1905.) 45. Mme. Caroline Testout × Bridesmaid. 15, 42.
- LADY ANN BORODELL, H.T. (S. J. Reuter & Son, Inc., reg. A. R. S., 1914.) Sport from My Maryland. 28.
- LADY BLANCHE, H.W. (Walsh, 1913.) 15.
- LADY CROMWELL, H.T. (A. N. Pierson, Inc., 1910.) Sport of My Maryland. 42.
- LADY DOROTHEA, T. (Dunlop, 1898.) 16. Sport of Sunset. 42.
- LADY DUNCAN, H.W. (Dawson, 1900.) *R. Wichuraiana* × *R. rugosa*.
- LADY GAY, H.W. (Walsh, 1905.) 15, 19. *R. Wichuraiana* × Bardou Job. 5, 16.
- LADY JOY, H.T. (Nanz & Neuner, 1901.) American Beauty × Mrs. W. J. Grant (Belle Siebrecht). 42.
- LADY MARS, Cl.T. (California Rose Co., 1909.) 15. Sport from Gloire de Dijon. 30.
- LA FIAMMA, H.W. (Walsh, 1909.) 15, 19. Syn., La Flamme. 15.

- LANDRETH'S CARMINE, N. (D. & C. Landreth, 1824.) Syn., Carmine Cluster. 10.
- LANSDOWNE, H.T. (Leonard, reg. A. R. S., 1914.) 15.
- LEGION, H.T. (Towill, 1920.) Milady seedling $\times$ Hadley seedling. 15. (Changed from "American Legion" because association of that name objected to same.)
- LE VESUVE, Ben.-C. (Sprunt, 1858.) 3.
- LILIAN NORDICA, H.T. (Walsh, 1898.) Margaret Dickson $\times$ Mme. Hoste. 42.
- LITTLE SUNSHINE, Poly. (Alexander R. Cumming, Jr.; reg. A. R. S., 1915. A. N. Pierson, Inc.) *R. multiflora nana* $\times$ Soleil d'Or.
- LITTLE WHITE PET, Poly. (Henderson, 1879.) 1, 13, 19.
- LORD CALVERT, H.T. (J. Cook, 1919.) Radiance $\times$ Hoosier Beauty. 15.
- LOS ANGELES, H.T. (Howard & Smith; reg. A. R. S., 1916.) Mme. Second Weber $\times$ Lyon Rose. 15.
- LUCILE, H.W. (Walsh, 1911.) 40.
- LUTEA, N. (Buist, —.) Syn., *R. Smithii*. 21.
- MADELEINE LEMOINE, Hyb. (Franceschi, —.) *R. moschata* $\times$ *R. odorata gigantea*. 34.
- MADISON, T. (Hentz, 1912.) 15.
- MADONNA, H.T. (J. Cook, 1908.) Furon $\times$ Marie Van Houtte.
- MAGNAFRANO, H.T. (Van Fleet, 1905; intro. by Conard & Jones Co.) Magna Charta $\times$ Safrano. 19.
- MAID MARIAN, H.W. (Walsh, 1909.) 15.
- MAID OF HONOR, T. (Hoffmeister, 1899.) Sport of Catherine Mermet. 16, 19.
- MANDA'S TRIUMPH, H.W. (Manda, 1898.) 37. *R. Wichuraiana* $\times$ a Hybrid Perpetual. 19.
- MARIGOLD, T. (E. G. Hill Co., 1905.) 45.
- MARION BRUNELL, C.T. (F. H. Brunell, Alabama, 1917.) Sport of Reine Marie Henriette. 15.
- MARION DINGEE, H.T. (J. Cook, 1889.) Caserta $\times$ General Jacqueminot $\times$ Safrano. 19.
- MARK TWAIN, H.T. (E. G. Hill Co., reg. A. R. S., 1902.) 5, 13, 19, 25.
- MARSHALL P. WILDER, H.P. (Ellwanger & Barry, 1885.) 15, 16, 17.
- MARY HILL, H.T. (E. G. Hill Co., 1917.) Ophelia $\times$ Sunburst.
- MARY LOVETT, H.W. (Van Fleet, 1915; intro. by J. T. Lovett, 1915.) *R. Wichuraiana* $\times$ Kaiserin Auguste Victoria.
- MARY WASHINGTON, Set.Hyb. Said to have been planted by George Washington on his estate at Mount Vernon and named by him in honor of his mother. 45. Syn., Martha Washington. 15.
- MASTER BURKE (*R. Lawrenciana*), Species. (Feast, —.) 21.
- MAUD LITTLE, T. (Dingee & Conard, 1891.) 1.
- MAVOURNEEN, H.T. (The Florex Gardens, reg. A. R. S., 1913.) Sport from Killarney. 37.
- MAX GRAF, Hyb. (Reg. A. R. S., 1919, by James H. Bowditch as *Rosa hybrida* Max Graf.) Thought to be a hybrid of *R. rugosa* $\times$ *R. setigera*.
- MAYFLOWER, T. (E. G. Hill Co., 1910.)
- MAY MARTIN, H.T. (Martin & Forbes, 1918.) Sport of Ophelia.
- MAY MILLER, H.T. (E. G. Hill Co., 1910.) Unnamed seedling $\times$ Paul Neyron. 5.
- MAY QUEEN, H.W. (Van Fleet, 1898; intro. by Conard & Jones Co.) 19. *R. Wichuraiana* $\times$ Mrs. de Graw. 16.
- MEXICO, H.P. (Bryant, 1863.) 45.
- MILADY, H.T. (Towill, 1913.) Richmond $\times$ J. B. Clark.
- MILEDGEVILLE, H.Set. (America, —.) 45.
- MILKY WAY, H.W. (Walsh, 1900.) 15.
- MILL'S BEAUTY, H.Set. (America, —.) 45.

- MINNEHAHA, H.W. (Walsh, 1904.) 45. *R. Wichuraiana* × Paul Neyron. 5, 16, 19.
- MINNIE DAWSON, Mult. (Dawson, 189-; intro. by Ellwanger & Barry.) *R. multiflora* × Dawson. 29, 31.
- MINNIE FRANCIS, T. (America, —.) 15.
- MISS ALICE ROOSEVELT, H.T. (Raised by Durfee, 1902; American Rose Co., reg. 1902.) 42, 45.
- MISS AMELIA GUDE, H.T. (F. H. Lemon & Co., reg. A. R. S., 1921.) Columbia × Sunburst.
- MISS BELL, T. (Intro. and date unknown.) 10.
- MISS KATE MOULTON, H.T. (Monson; intro. by Minneapolis Floral Co., 1906.) 42. Mme. Caroline Testout × La France × Mrs. W. J. Grant (Belle Siebrecht). 15, 19.
- MISS LOLITA ARMOUR, Per. (Howard & Smith, 1919.) Result of a cross between two unnamed seedlings. 15.
- MISS MAUDY SHUBROOK, H.T. (California Rose Co., 1914.) Sport from Mrs. Aaron Ward. 15.
- MISS RUBY DENT, H.P. (California Rose Co., 1916.) Sport from Mrs. John Laing; also classed as a Hybrid Tea. 15.
- MISS SARAH NESBITT, T. (B. Dorrance, 1910.) 27. Sport from Mme. Cusin. 42.
- MISS SARGENT, T. (Mackenzie, of Philadelphia, about 185-.) 10.
- MLE. MARTHE HYRIGOYEN, H.C. (E. G. Hill Co., 1902.) 25.
- MME. BOLL, Portlandica. (Boll, 1859.) 45.
- MME. BOLL, H.P. (Boll, 1858.) 1.
- MME. BUTTERFLY, H.T. (E. G. Hill Co., 1918.) Sport of Ophelia.
- MME. BYRNE, N. (Buist, 1850.) 10. Seedling of Lamarque. 21.
- MME. TRUDEAUX, H.P. (Boll, 1850.) 1, 17.
- MME. TRUDEAUX, D. (Boll, —.) 10.
- MOLLOTY, H.T. (Fr. Schoener, 1919 (?).) Maman Cochet × Kaiserin Auguste Victoria. 15.
- MONTARIOSIA, Hybrid. (Franceschi, —.) *R. moschata* × *R. odorata gigantea*. 34.
- MONTICITO, Hybrid. (Franceschi, —.) *R. moschata* × *R. odorata gigantea*. 34.
- MONTROSE, H.T. (J. Cook, 1916.) 15. Unnamed red × Laurent Carle.
- MRS. ALLEN CHANDLER, B. (Chandler, 1903.) 45.
- MRS. BAYARD THAYER, H.T. (Waban Rose Cons., reg. A. R. S., 1916.) 15.
- MRS. BELMONT TIFFANY, H.T. (Budlong, reg. A. R. S., 1917; intro. by A. N. Pierson, Inc., 1918.) Sport of Sunburst.
- MRS. BROOK E. LEE, H.T. (Byrnes, U. S. Dept. of Agric., 1918.) 46.
- MRS. B. T. GALLOWAY, H.T. (Byrnes, U. S. Dept. of Agric., 1918.) 46.
- MRS. CHARLES BELL, H.T. (A. N. Pierson, Inc., reg. A. R. S., 1917.) Sport of Radiance.
- MRS. CHARLES RUSSELL, H.T. (Montgomery, 1913.) "Mme. Abel Chatenay, Marquise Litta de Breteuil, Mme. Caroline Testout, Mrs. W. J. Grant (Belle Siebrecht), General MacArthur, and three seedlings resulting from these crosses are all combined to produce Mrs. Charles Russell." 15.
- MRS. CHARLES DINGEE, H.T. (Dingee & Conard, —.) 15.
- MRS. CHARLES GERSDORFF, Cl.H.T. (Gersdorff, reg. A. R. S., 1916.) White climbing rose × Killarney.
- MRS. CLEVELAND, H.P. (Gill, 1897.) 1, 13, 19.
- MRS. DE GRAW, B. (Burgess, 1885.) 16.
- MRS. EDWORTG, H.Set. (America, —.) 45.
- MRS. E. T. STOTESBURY, H.T. (Towill, reg. A. R. S., 1918.) Seedling (Joseph Hill × My Maryland) × Milady.
- MRS. F. F. THOMPSON, H.T. (Totty, 1915.) Sport of Mrs. George Shawyer. 15.

- MRS. HENRY WINNETT, H.T. (Dunlop, reg. A. R. S., 1917.) Mrs. Charles Russell × Mrs. George Shawyer. 15.
- MRS. JAMES G. PENNY, H.T. (Joseph W. Vestal & Son, —.) Sport of Radiance.
- MRS. J. C. AINSWORTH, H.T. (Clarke Bros., 1918.) Sport of Mrs. Charles Russell.
- MRS. JESSIE FREMONT, T. (Dingee & Conard, 1891.) 1, 45.
- MRS. JOHN COOK, H.T. (J. Cook, reg. A. R. S., 1919; intro. by A. N. Pierson, Inc., 1920.) Ophelia × three unnamed seedlings. 15.
- MRS. J. PIERPONT MORGAN, T. (May, 1895.) 15, 16. Sport from Mme. Cusin. Syn., Mrs. Pierpont Morgan. 15.
- *MRS. LOVETT, H.W. (Dr. Van Fleet, —.) 15.
- MRS. MARSHALL FIELD, H.T. (Reinberg, 1906.) 42.
- MRS. MARY NEIHOFF, H.T. (Neihoff, 1908.) Syn., Aurora. 42.
- MRS. M. H. WALSH, H.W. (Walsh, 1911.) Syn., Mrs. Walsh. 15. Gold Medal of A. R. S., 1911.
- MRS. MOORFIELD STOREY, H.T. (Waban Rose Conservatories, reg. A. R. S., 1915.) General MacArthur × Joseph Hill.
- MRS. OLIVER AMES, T. (R. Montgomery, 1898.) Sport from Mrs. J. Pierpont Morgan. 42.
- MRS. OPIE, T. (Bell & Son, 1877.) 17.
- MRS. PAUL NEIHOFF, H.T. (Neihoff, 1903.) 39.
- MRS. PIERCE, Set. (Pierce, about 1850.) 10, 17. Syn., Mrs. Hovey. 22.
- MRS. POTTER PALMER, H.T. (Breitmeyer, 1909.) 19, 25.
- MRS. PRENTISS NICHOLS, H.T. (Robert Scott & Sons, 1922.) 15.
- MRS. R. B. MELLON, H. Spin. (Elliott Nursery, 1917.) Seedling. 15.
- MRS. ROBERT GARRETT, H.T. (J. Cook, 1900.) Caserta × F. E. Verdier.
- MRS. ROBERT PEARY, Cl.H.T. (De Voecht & De Wilde; intro. by Dingee & Conard, 1897.) Sport from Kaiserin Auguste Victoria. 45.
- MRS. SARAH YEATS, H.T. (Originated and reg. by Yeats, 1916; intro. by A. L. Randall Co., 1917.) 15.
- MRS. SIDDONS, N. (America, —.) 45.
- MRS. S. K. RINGEE, Per. (Howard & Smith, 1919.) Rayon d'Or × Frau Karl Druschki. 15.
- MRS. SMITH, H.P. (America, —.) 45.
- MRS. E. W. STERLING, H.T. (J. Cook, 1916; not disseminated.) Antoine Rivoire × unnamed pink seedling. 15.
- MRS. THEODORE ROOSEVELT, H.T. (E. G. Hill Co., 1904.) Sport of La France. 19.
- MRS. WALTER T. SUMNER, H.T. (Clarke Bros., reg. A. R. S., 1920.) Ophelia × Hadley. 15.
- MRS. W. C. WHITNEY, H.T. (May, 1894) 11, 16.
- MRS. W. A. TAYLOR, H.T. (Byrnes, U. S. Department of Agriculture, 1918.) 46.
- MRS. WM. R. HEARST, H.T. (A. N. Pierson, Inc., reg. A. R. S., 1916.) Sport of My Maryland. 15.
- MR. TORONTO, T. (Dunlop, 1892.) 45.
- MR. VERNON, Ben. (Page, 1859.) Syn., Mons. Vernon. 45.
- MURIEL MOORE, H.T. (Moore, 1916.) Sport of My Maryland.
- MY MARYLAND, H.T. (J. Cook, 1908.) Madonna × Enchanter.
- MY QUEEN, H.T. (Fr. Schoener, 1919 (?).) Golden Gate × British Queen. 15.
- NESTOR, H.T. (E. G. Hill Co., 1902.) 45.
- NEVIA, Set. (Feast, 1843.) 10.

*Probably identical with Mary Lovett, H.W.

- NEW CENTURY, H.Ru. (Van Fleet, 1900; intro. by Conard & Jones Co.) *R. rugosa* × Clotilde Soupert.
- NEWPORT FAIRY, H.Mult. (Gardner; intro. by Roehrs, 1908.) 12, 19. *R. Wichuraiana* × Crimson Rambler. Syn., Newport Rambler. 39, 42.
- NILES COCHET, T. (California, —.) 15.
- NOISETTE DE L'INDE, N. (Noisette, 1814.) Type. 45.
- NOKOMIS, H.W. (Walsh, 1918.) *R. Wichuraiana* × Comte de Raimbaud.
- NORMA, H.T. (Dingee & Conard, 1904.) 4, 19, 25.
- NORTHERN LIGHT, H.W. (Van Fleet, 1898; intro. by Conard & Jones Co.) *Wichuraiana* hybrid. 19.
- OAKMONT, H.P. (May, 1893.) 15, 19.
- OLD BLUSH, N. (Noisette, 1817.) 2.
- OLIVIA, H.T. (E. G. Hill Co., 1907.) 15, 19. Syn., Oliva. 15.
- ONANDAGA SEEDLING, H.P. (Smiley, 1904.) 45.
- OPHELLA, N. (America, —.) 45.
- OPHELLA, T. (Gray, 1858.) 45.
- OPHELLA SUPREME, H.T. (Dailedouze Bros.; reg. Soc. American Florists, 1917.) Sport. 24.
- ORANGE PERFECTION, H.P. (Manda, 1898.) 1.
- OREGON OPHELLA, H.T. (Clarke Bros., 1920.) Sport of Ophelia. 15.
- ORIOLE, Mult. (Jackson & Perkins, 1911.) 42.
- ORIOLE, H.T. (California Rose Co., 1910.) 15.
- PALLIDA, Set. (Feast, 1843.) 10, 17, 20.
- PANAMA, H.P. (E. G. Hill Co., 1908.) Paul Neyron × seedling of Joseph Hill. 5.
- PANAMA, H.T. (J. Cook, 1913; reg. A. R. S., 1919.) Frau Karl Druschki × unnamed pink seedling. Awarded Silver Medal, A. R. S., 1915.
- PAN-AMERICA, H.T. (Henderson, 1901.) American Beauty × Mme. Caroline Testout. 19, 42.
- PARADISE, H.W. (Walsh, 1907.) 15, 19.
- PAUL DE LONGPRE, H.T. (E. G. Hill Co., 1906.) 19.
- PAULINE DAWSON, H.Cl. (Dawson, 1916.) 31.
- PEARL OF THE PACIFIC, H.T. (Fr. Schoener, 1919 [?].) Seedling. 15.
- PEARL QUEEN, H.W. (Van Fleet, 1898; intro. by Conard & Jones Co., 1911.) 32, 42. *R. Wichuraiana* × Mrs. de Graw. 16.
- PEARL RIVERS, T. (Dingee & Conard, 1890.) 1, 16.
- PENELOPE MAYO, H.P. (Davis, 1878.) 1.
- PERPETUAL MICHIGAN, Set. (Feast, about 1843.) 10.
- PHILADELPHIA, Ramb. (Van Fleet, 1904; intro. by Conard & Jones Co.) Crimson Rambler × Victor Hugo. 16, 19. Probably the same as Philadelphia, H.Mult. Syn., Philadelphia Crimson Rambler. 15.
- PILGRIM, H.T. (Montgomery Co., Inc., reg. A. R. S., 1919; intro. by A. N. Pierson, Inc., 1920.) Seedling. 15.
- PILLAR OF GOLD, Cl.T. (Conard & Jones Co., 1909.) 19.
- PINK BEAUTY, H.T. (J. Cook, reg. A. R. S., 1919.) Ophelia × My Maryland. 15.
- PINK BEDDER, H.T. (Meehan, —.) 45.
- PINK CECILE BRUNNER, Poly. (Western Rose Co., 1918.) Sport. 15.
- PINK CHEROKEE, Læv. (California, 1887.) *R. laevigata* × *R. indica*. 15.
- PINK FRAU KARL DRUSCHKI, H.P. (California Rose Co., 1910.) Sport. 15.
- PINK KEY, H.T. (F. R. Pierson, 1920.) Sport of Francis Scott Key. 15.
- PINK OPHELLA, H.T. (Howard & Smith, 1916.) Sport from Ophelia.
- PINK PEARL, H.W. (Manda, 1901.) *R. Wichuraiana* × Meteor.

- PINK PERLE DES JARDINS, T. (Nanz & Neuner, 1891.) Sport. 1, 45.
- PINK ROAMER, H.W. (Manda, 1898.) 19. Syn., Pink Rover. 15.
- PINK SOUPERT, Poly. (Dingee & Conard, 1896.) 1. Sport from Clotilde Soupert. 15.
- POM POM, H.W. (U. S. Department of Agriculture, 1910.) 25. Crimson Rambler × *R. Wichuraiana*. 15.
- PREMIER, H.T. (E. G. Hill Co., 1918.) Ophelia seedling × Mrs. Charles Russell. 15. Syn., Rose Premier, reg. A. R. S., 1917.
- PRESIDENT TAFT, H.T. (McCullough, 1908.) Syns., President W. H. Taft; Taft Rose; Wm. H. Taft. 15.
- PRETTY AMERICAN (*R. Lawrenceana*). (Boll, 183- or 185-) 10.
- PRIDE OF THE SOUTH, Set. (America, —) 15.
- PRIDE OF WASHINGTON, Set. (Pierce, about 185-) 7, 10, 19.
- PRIMROSE, T. (Dingee & Conard, 1908.) 19.
- PRINCESS, H.Cl. (Walsh, reg. 1902.) 42.
- PRINCESS BONNIE, T. (Dingee & Conard, 1897.) 1. Bon Silene × Wm. F. Bennett. 19.
- PRINCESS ENA, Poly. (H. B. May, 1907.) Sport of Baby Crimson Rambler. 26.
- PRINCE THEODORE BONNEY, H.T. (Dingee & Conard Co., 1898.) Bon Silene × William Francis Bennett. 42.
- PRINCETON, H.T. (Stockton & Howe, 1912.) 41.
- PRISCILLA, H.T. (Henderson, 1910.) Kaiserin Auguste Victoria × Frau Karl Druschki. 5, 25.
- PROF. C. S. SARGENT, H.W. (Hoopes, Bro. & Thomas Co., 1903.) *R. Wichuraiana* × Souv. d'Auguste Metral. (Not the same as Sargent.) 19.
- PURITY, H.W. (Hoopes, Bro. & Thomas Co., 1917.) Unnamed seedling × Mme. Caroline Testout. Silver Medal, A. R. S., 1915.
- QUEEN BEATRICE, H.T. (Credited to Kramer, 1907, by Good & Reese Co.) 15. (Dingee & Conard, 1906.) 15. Mme. Abel Chatenay × Liberty. 25.
- QUEEN MADGE, H.T. (Fitzsimmons, reg. 1902.) 42.
- QUEEN OF EDGELY, H.P. (Floral Exchange, 1901.) 19, 42. Sport from American Beauty. Syn., Pink American Beauty. 15.
- QUEENS SCARLET, Ben. (Hallock & Thorpe, 1880.) 15, 17. Syn., Red Hermosa. 15.
- RADIANCE, H.T. (J. Cook; intro. by P. Henderson & Co., 1908.) Enchanter × Cardinal. Awarded Silver Medal of A. R. S., 1914. 19.
- RAINBOW, T. (Sievers, 1891.) Sport from Papa Gontier. 3, 19. (Dingee & Conard, 1891.) 2. Sievers was probably the originator.
- RAMONA, Læv. (Dietrich & Turner, 1913.) Sport from Pink Cherokee. Syn., Red Cherokee. 15.
- RED COLUMBIA, H.T. (Jos. H. Hill Co., reg. A. R. S., 1920.) Sport. 15.
- RED KILLARNEY, H.T. (A. N. Pierson, Inc., 1910 or 1911.) Sport. 40, 42.
- RED PET, Ben. (Parker, 1888.) 45.
- RED RADIANCE, H.T. (A. N. Pierson, Inc., 1916.) Sport. 15.
- RED RADIANCE, H.T. (Gude Bros., 1916.) Sport. Darker than Pierson's. 15.
- REGINA, H.W. (Walsh, 1916.) 15.
- RELIANCE, H.T. (E. G. Hill Co., 1910.) 4, 19. Etoile de France × Chateau de Clos Vougeot. 15.
- RENA ROBBINS, H.T. (E. G. Hill Co., 1911.) Paul Neyron × Mme. Jenny Gillemot.
- RHEA REID, H.T. (E. G. Hill Co., 1908.) American Beauty × red seedling. 12, 19.

- RICHMOND, H.T. (E. G. Hill Co., 1905.) Lady Battersea $\times$ Liberty. 19. Syn., Everblooming Jack Rose. 15.
- ROBERT CRAIG, H.W. (Hoopes, Bro. & Thomas Co., 1903.) *R. Wichuraiana* $\times$ Beaute Inconstante. 19.
- ROBERT HELLER, T. (E. G. Hill Co., 1911.)
- ROBERT SCOTT, H.T. (Robert Scott & Son, 1901.) 15. Merveille de Lyon $\times$ Mrs. W. J. Grant (Belle Siebrecht). 19.
- ROBIN HOOD, H.T. (E. G. Hill Co., 1912.)
- ROSALIE, T. (Ellwanger & Barry, 1884.) Seedling from Marie Van Houtte. 17. Syn., Fairy Queen. 1.
- ROSALIND, H.T. (F. R. Pierson Co., reg. A. R. S., 1918.) Sport of Ophelia. 15.
- ROSALIND ORR ENGLISH, H.T. (E. G. Hill Co., 1905.) 3, 15. Mme. Abel Chatenay $\times$ Papa Gontier. 19.
- ROSA BELLA, Species. (Raised from seed collected by Purdom and classified by Rehder & Wilson, from northwestern China, 1910.) 34, 35.
- ROSA BELLA PALLENS, Species. (Raised from seed collected by Purdom and classified by Rehder & Wilson, from northwestern China, 1910.) 34, 35.
- ROSA BRACTEATA, Species. (From China and Formosa, naturalized in America, —.) 34.
- ROSA CHINENSIS SPONTANEA, Species. (Rehder & Wilson, from central China between 1907 and 1910.) 34.
- ROSA DAVIDII ELONGATA, Species. (Rehder & Wilson, from southern China, 1908.) 34, 35.
- ROSA FILIPES, Species. (Rehder & Wilson, from southern China, 1910.) 34, 35.
- ROSA GIRALDII GLABRIUSCULA, Species. (Rehder & Wilson, from China, 1910.) 35.
- ROSA GIRALDII VENULOSA, Species. (Rehder & Wilson, from Central China, 1910.) 34, 35.
- ROSA GLOMERATA, Species. (Rehder & Wilson, from western China, 1910.) 34, 35.
- ROSA GRACILIFLORA, Species. (Rehder & Wilson, from China, 1908.) 35.
- ROSA HELENE, Species. (Rehder & Wilson, from Central China, 1907.) 29, 36.
- ROSA HUMILIS HYBRIDA, Hybrid. (America, before 1893.) *R. humilis* $\times$ *R. rugosa*. 35.
- ROSA HYBRIDA, MAX GRAF (James H. Bowditch, reg. A. R. S., 1919.) Probably hybrid of *R. rugosa* $\times$ *R. setigera*. 43. Probably Max Graf.
- ROSA JACKII, Species. (Rehder, from China, 1905.) 29. Syn., *R. Kelleri*. 34.
- ROSA JACKSONII, Hybrid. (Jackson Dawson, 1897.) 35. *R. rugosa* $\times$ *R. Wichuraiana*. 29.
- ROSA LEVIGATA, Species. (Brought to America from China and Formosa early in 17th century.) Syns., *R. sinica*, *R. cherokensis*, *R. ternata*, *R. nivea*, Camellia, Cherokee Rose. 34, 36.
- ROSA MOYESII ROSEA, Species. (Rehder & Wilson, from China, 1910.) 35.
- ROSA MULTIFLORA CATHAYENSIS, Species. (Rehder & Wilson, from China, 1907.) 34, 36.
- ROSA MURIELÆ, Species. (Rehder & Wilson, from China, 1910.) 34, 35.
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 ROSE-PINK OPHELIA, H.T. (Breitmeyer, 1917.) Sport of Ophelia.
 ROSE QUEEN, H.T. (E. G. Hill Co., 1911.)
 ROSERIE, Mult. (R. Witterst tetter, 1917.) Sport from Tausendsch n. 15. Syn., Rosary. 15.
 ROTARIAN, H.T. (F. H. Lemon & Co., reg. A. R. S., 1921.) Ophelia $\times$ unknown pollen parent.
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 RUBY QUEEN, H.W. (Van Fleet, 1899; intro. by Conard & Jones Co.) *R. Wichuraiana* $\times$ Queens Scarlet. 16.
 RUGOSA MAGNIFICA, H.Ru. (Van Fleet, 1905; intro. by Conard & Jones Co.) *R. rugosa* $\times$ Ards Rover.
 RUSSELLIANA, Set. (Russell, 1900.) 25. Syns., Russell's Cottage; Russel's Cottage. 15. Syns., Scarlet Grevillea; Cottage Rose. 21.
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 SIR THOMAS LIPTON, H.Ru. (Van Fleet, 1900; intro. by Conard & Jones Co.) *R. rugosa* $\times$ Clotilde Soupert. 19.
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 SOUV. DE HENRY CLAY, Scotch hybrid. (Boll, 1854.) 17.

- SOUVENIR OF HENRY CLAY, Centifolia-pompon. (America, —.) 45.
 SOUV. OF WOOTTON, H.T. (J. Cook, 1888.) Bon Silene $\times$ Louis Van Houtte.
 Said to be the first Hybrid Tea rose raised in the United States. 19. Syns.,
 Souv. de la Wootton; Souv. de Wootton. 15.
 SPECTACULAR, H.T. (Elliott, 1912.) Syn., Striped Killarney. 15.
 STAR OF THE WEST, B. (Page, 1859.) 45.
 SUMMER JOY, H.Cl. (Walsh, 1911.) 15.
 SUNBEAM, T. (California Rose Co., 1908.) 15. Sport from Golden Gate.
 30.
 SUNSET, T. (Henderson, 1883.) 1, 16, 19. Sport from Perle des Jardins. 9.
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 Kershaw. 15.
 SYLVIA, H.T. (F. R. Pierson Co., reg. A. R. S., 1918.) Sport of Ophelia. 15.
 TENNESSEE BELLE, Mult. (America, —.) 15.
 THE GEM, T. (Conard & Jones, 1903.) 45.
 THE OREGON, H.T. (E. G. Hill Co., never formally introduced.) Liberty $\times$
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 THE QUEEN, T. (Dingee & Conard, 1896.) 1.
 THORA, H.T. (Burton, 1914.) 15.
 TOM FIELD, H.T. (Field, 1906.) 42. (1904.) 45.
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 VICK'S CAPRICE, H.P. (Vick, 1893.) 1. (1889.) Sport from Archduchesse
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 VICTOR, H.T. (E. G. Hill Co., 1918.) Ophelia seedling $\times$ Killarney Brilliant.
 VICTORY, H.W. (F. R. M. Undritz, reg. A. R. S., 1918; intro. by Reinhold Un-
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 VIRGINIAN RAMBLER, Mult. (America, —.) 45.
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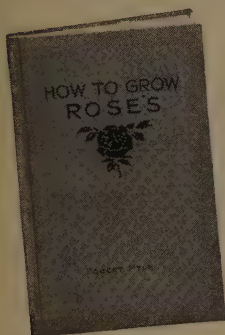
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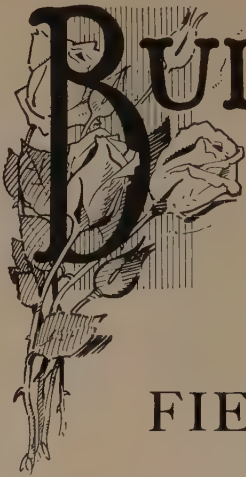
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